MARITIME REPORTER

First Coastwise Containership Launched At Maryland Ship For Erie & St. Lawrence Corp.

(SEE PAGE 7)

JULY 15, 1960

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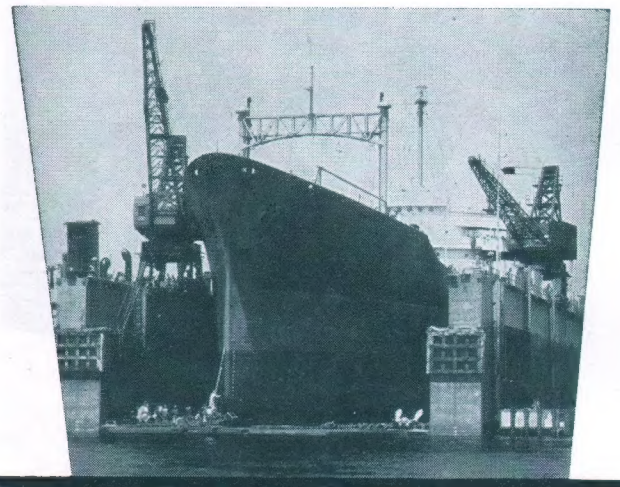

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$15,850,156 Contract Awarded To Avondale

Avondale Marine Ways, Inc., New Orleans, La., has been awarded a contract by the United States Navy, Bureau of Ships, to design and construct two rocket-armed destroyer escorts at a cost totaling almost $16 million.

The two destroyer escort vessels (DE-1037 Class) to be built to new and modern specifications by Avondale will be 371 feet in length and 40 feet at the beam. They will have a unique array of equipment for ships of their kind. Included will be bow-mounted sonar listening equipment, remotely-controlled anti-submarine helicopters, anti-submarine torpedoes and three-inch guns. The ships will also carry the Navy's new ASROC anti-submarine rocket.

Engineering work on the two vessels will begin soon and their keels will be laid in 10 or 12 months. Avondale currently holds a contract to build two guided missile destroyers (DDG) for the Navy, and construction of these vessels will be concurrent with this latest order. These ships will be 431 feet in length, with a 47-foot beam and are the first destroyers to be built in the state of Louisiana. Their cost totals approximately $35,000,000.

Avondale's background of work for the Navy, including contracts going back to the early years of World War II, covers well over 300 vessels of various types and sizes. Beginning with such smaller craft as PCE's, LCU's and LCM's, Avondale has also built LST's ice-strengthened cargo ships and has only recently completed a series of four destroyer escorts, the last of which was delivered in February of 1960.

Avondale's latest Navy contract is described as ocean escort vessels rather than destroyer escorts. Ocean escort vessels are slightly larger than a destroyer escort.

Construction will take place at Avondale Marine Ways' Main Yard on the west bank of the Mississippi River just above New Orleans. The vessels will be side-launched into the Mississippi.

In addition to its current defense contracts, Avondale is now building three 10,760-ton freighters for the Mississippi Shipping Company, Delta Line.

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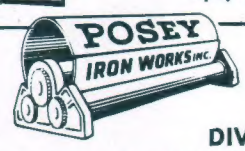

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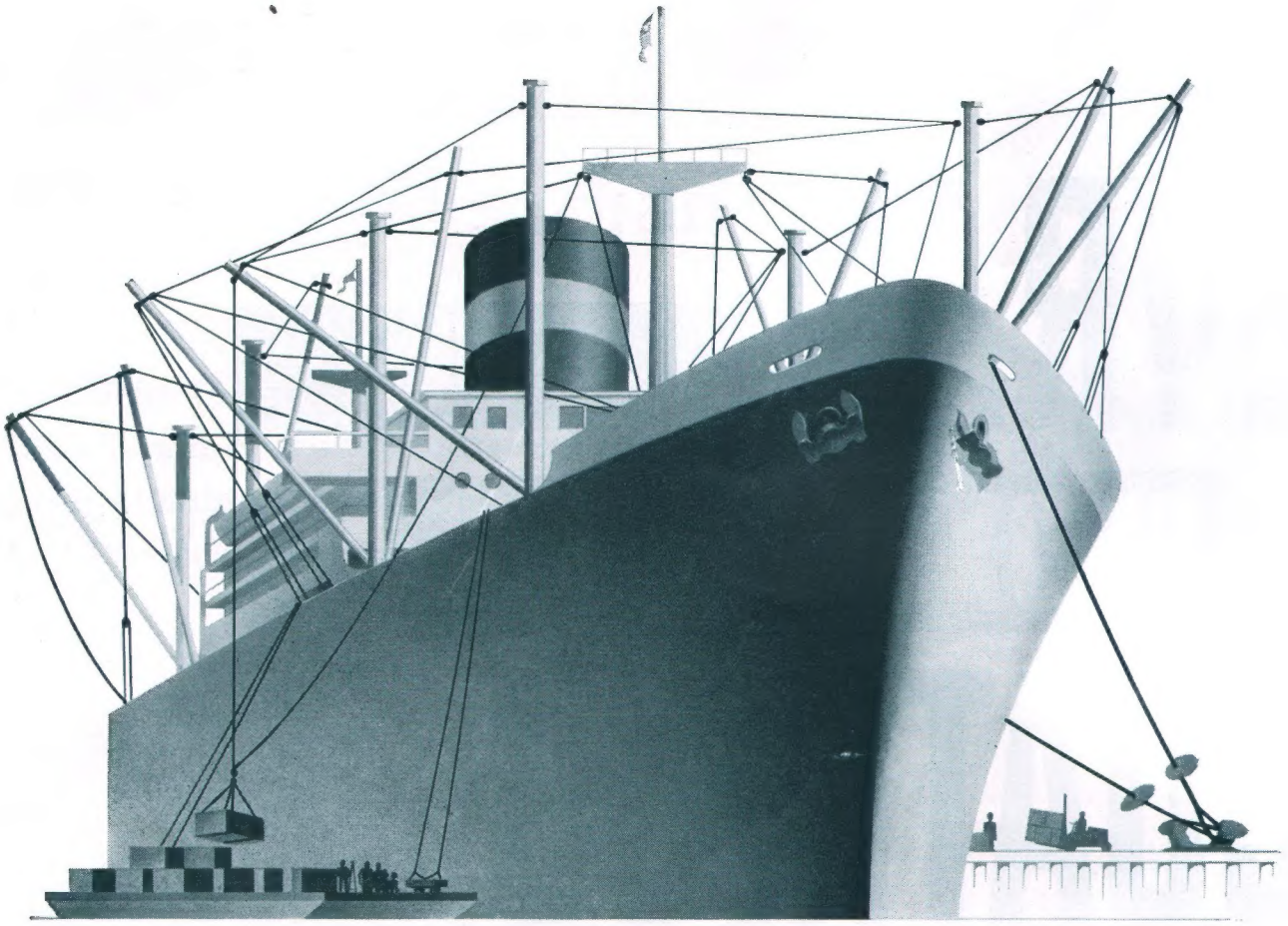

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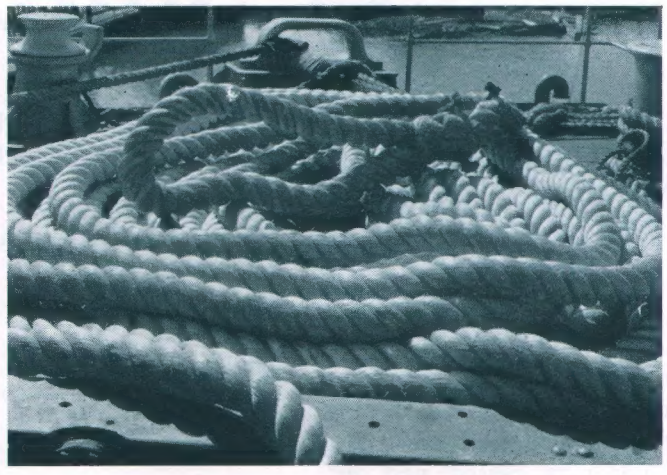

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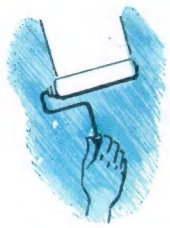

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M.V. Floridian

First Ship To Be Built For U.S. Coastwise Service Since World War II Is Launched Sideways Into Wet Basin At Baltimore Yard of Maryland Shipbuilding And Drydock Company.

Wm. Purnell Hall, President of Maryland Shipbuilding and Drydock Company presents a memento of the launching to Mrs. W. L. Swain, sponsor of the Floridian.

The M.V. Floridian the first of two coastal freighters being built for Containerships, Inc., the wholly owned subsidiary of Erie & St. Lawrence Corporation, was launched recently at Maryland Shipbuilding & Drydock Company in Baltimore.

The sponsor of the vessel was **Mrs. W. L. Swain,** wife of the Executive Vice-President and General Manager of Erie & St. Lawrence Corporation. The Maid of Honor was **Miss Lois Shearer,** sister of the sponsor. Other members of the sponsor's party were Honorable **John J. Allen,** Under Secretary of Commerce for Transportation, and **Mrs. Allen**; Honorable **J. Harold Grady,** Mayor of Baltimore, and **Mrs. Grady**; **Harry N. Moore,** President of Erie & St. Lawrence Corporation, and **Mrs. Moore**; **W. L. Swain**; **Leon W. Zucker,** Treasurer of Erie & St. Lawrence Corporation, and **Mrs. Zucker**; **Charles J. Colgan,** a Director of Erie & St. Lawrence Corporation, and **Mrs. Colgan**; **Wm. Purnell Hall,** President of Maryland Shipbuilding & Drydock Company, and **Mrs. Hall**; **William H. Jory,** Senior Vice-President of Maryland Shipbuilding & Drydock Company, and **Mrs. Jory**; **Gerald M. Stein,** Vice-President of Maryland Shipbuilding & Drydock Company, and **Mrs. Stein**; **Howard Swain** and **Miss Roslin P. Moore.**

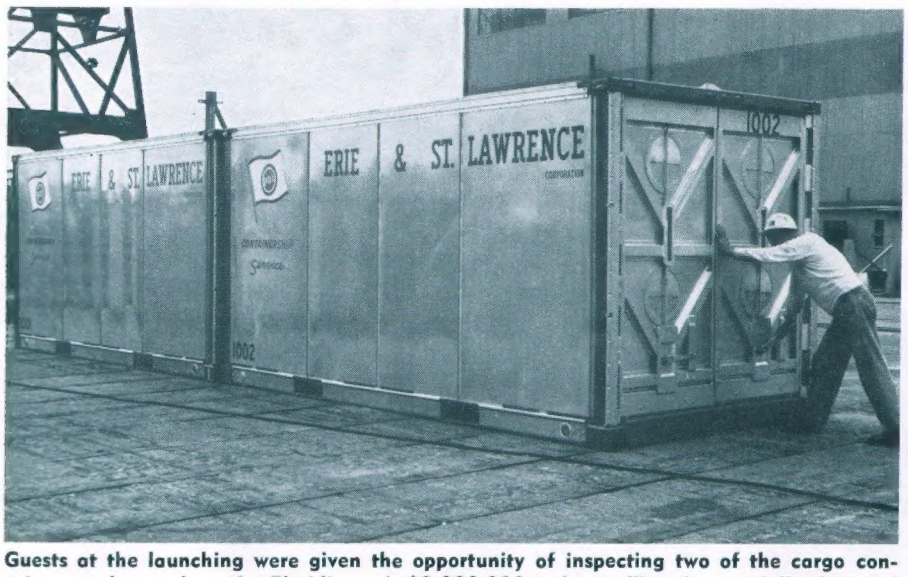
Mr. **Hall** welcomed the guests who included 2,000 company employees and introduced Mayor **Grady** who extended official greetings to the gathering. After this, Mr. **Hall** introduced the Honorable **John J. Allen** who was guest speaker (see editorial page, this issue).

The Floridian and her sister ship the New Yorker are the first to be designed and built specifically as container-carrying vessels. They are 360 feet long with a beam of 52 feet and a loaded draft of 14 feet six inches. Twin-screw diesel propulsion totaling 4,000 shaft horsepower enables the vessels to operate at 16 knots. Each vessel is capable of carrying 2,100 short tons of cargo in 170 lightweight sealed containers, 142 of which will be eight feet by eight feet by 17 feet, and 28 others eight feet by eight feet by eight feet six inches. Approximately 20 per cent of the containers are for refrigerated cargo. In addition, about 50 automobiles can be carried as deck load.

The ships are designed for rapid cargo loading and discharging with either operation being accomplished in less than four and one-half hours by the utilization of fork-lift trucks traveling through large stern doors.

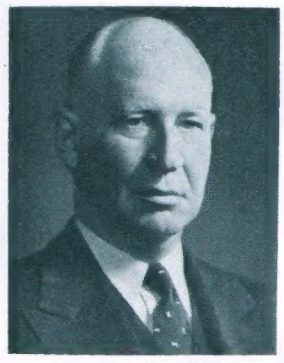
The two vessels, which cost in excess of $7,000,000, will be operated by the Erie & St. Lawrence Corporation which holds an Interstate Commerce Commission Common Carrier Franchise permitting it to serve Great Lakes, Atlantic Coast and Gulf ports.

Erie & St. Lawrence Containership Service between New York and Jacksonville will be inaugurated next month when the company will provide evening pickup in New York City and delivery in Jacksonville the third morning following. Two sailings weekly will be provided in each direction.



Guests at the launching were given the opportunity of inspecting two of the cargo containers to be used on the Floridian. A $2,000,000 order, calling for specially designed lightweight, heavy-duty containers was placed with Highway Trailer Company.

United States Lines Elects Top Executives



John M. Franklin

Charles D. Gibbons

William B. Rand

The United States Lines Company recently announced the election of **John M. Franklin** to the new post of Chairman of the Board and Chief Executive Officer. He will be succeeded as President by **Charles D. Gibbons,** formerly Executive Vice-President. **William B. Rand,** former Vice-President for Freight Traffic, was appointed Executive Vice-President.

Mr. **Franklin,** who celebrated his 65th birthday in June, has been in the shipping business for more than 40 years. He served as Army Captain in World War I and joined the Argonaut Steamship Company, the inter-coastal service of Norton, Lilly & Company, after his separation from the Army. In 1927 he joined the Roosevelt Steamship Company and, upon that concern's merger with the United States Lines, was elected Vice-President for Operations. In 1936 he was first elected President of the United States Lines. In 1942 he received his commission as a Colonel, was promoted to Brigadier-General a year later, and attained the rank of Major-General in June 1945. After World War II he was re-elected President of the company and began in 1945 to lay the groundwork for one of the outstanding achievements of his career, the construction of the liner United States.

Mr. **Gibbons** has a background of 47 years in the shipping and shipbuilding industries. He started his career as a ship draftsman in 1913 and held various posts with the United States Shipping Board and the Merchant Fleet Corporation from 1921 to 1936. That year he joined United States Lines as Assistant Treasurer. In 1953 he was elected Vice-President and in January of this year Executive Vice-President.

Mr. **Rand** joined United States Lines in 1946 as Assistant to the General Manager of the operating department. He was named Assistant to the Executive Vice-President in 1951 and General Freight Traffic Manager in 1954. In January 1957 he was named Vice- President and a Director of the company.

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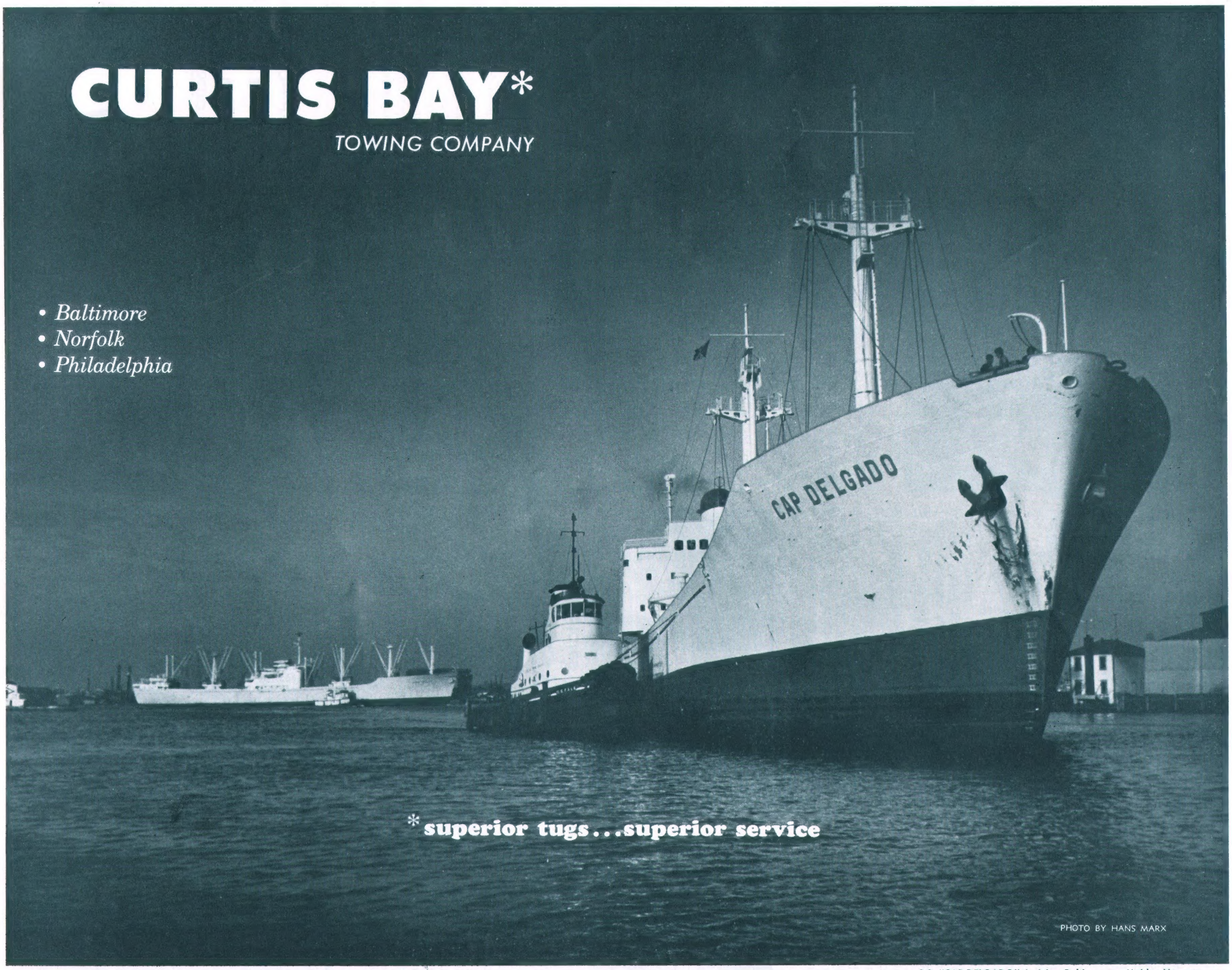

*** superior tugs . . . superior service**

PHOTO BY HANS MARX

S.S. "CAP DELGADO" Arriving Baltimore on Maiden Voyage

EDITORIAL

Labor And The New Containerships

A new service is scheduled to get under way between New York and Jacksonville, Fla., as the Erie & St. Lawrence Corporation begins operations with the Floridian, the world's first ocean ship to be built from the keel up to carry cargo unitized in large metal containers. Shortly afterward a sister ship, the New Yorker, will join the Floridian in the Coastwise run.

The advent of these beautiful and unique motorships will present a challenge to maritime labor leadership. The response to this challenge will, in large measure, determine the future of the nation's domestic shipping industry which constituted a very large segment of the American merchant marine before World War II.

At the launching ceremonies for the Floridian in the Maryland Shipbuilding and Dry Dock Company's yard in Baltimore, Under Secretary of Commerce for Transportation **John J. Allen** made a penetrating observation. "You are not merely witnessing the launching of just another ship," he told the audience, "but rather the launching of a new type of ship, one that I believe should make a substantial contribution toward improving the time-worn system of cargo handling and distribution on the Atlantic Seaboard."

Ships like the Floridian and New Yorker, he predicted, "will provide a real opportunity for revitalizing our domestic trades." Unfortunately, these trades have "declined to an almost irreducible minimum," he noted, because the traditional type of ship cannot meet the competition of shore transportation.

As defense vessels the Floridian and New Yorker will fulfill the Army's need for roll-on, roll-off ships.

It is heartening to know that private industry is willing to risk investment in a new project of this type. Let us hope that maritime labor will also adopt a pioneering spirit and help this project get on its feet and remain there. This will mean that labor must forego the temptation to featherbed.

Actually there is no excuse for featherbedding. These vessels are new, the service is new. There is no replacement of old equipment with labor-saving new machinery. No man will lose his job, in fact, as the service gets started it will mean many new jobs for shore and ship workers. If it prospers there will be additional jobs, for Erie & St. Lawrence has plans for building three additional ships if its venture is a success.

So now is the time for thoughtful labor leaders to take a realistic and long range view for the benefit of their members. They can jeopardize the new company's future by forcing it to accept men it does not need. They can render a beneficial service not only to their members but to the entire nation if they act wisely.

The Safest Ships On The Safest Route

The International Conference for Safety of Life at Sea ended in London as a flop. After three years of preparation it did virtually nothing to further safety of life at sea principally because of the stubborn opposition of most of the traditional maritime powers to proposals put forward by the United States.

The international conference was called chiefly as a result of the shock in this country following the Andrea Doria-Stockholm disaster in 1956 in which a fine, recently-built passenger liner sank with the loss of fifty lives. An investigation by Congress more or less concluded that a ship that should not have sunk had been rammed by a vessel that should not have been there. As a result, the nation's House Merchant Marine Committee, under Representative **Herbert C. Bonner** (D-N.C.), demanded that the State Department do something to eliminate the possibility of such an accident being repeated.

The proposals put forward by American delegates to the international conference were that a new international safety convention insist that all merchant ships built by signatory nations be constructed as strongly as American ships and that all liners in the heavily traveled North Atlantic route be required to follow certain tracks for eastbound or westbound ships to avert future collisions.

Both proposals were defeated by the delegates from Britain, Holland, Scandinavia and Italy among others.

They rejected the safety features that this nation already requires for its merchant vessels as unnecessarily costly. The expense of making American ships the world's safest ships is one of the reasons that subsidies are necessary. If foreign nations would adopt the same high construction standards, the much criticized subsidies could be decreased as the difference in cost between building ships here and abroad was lessened by the new requirements.

The real reason for opposing the track agreement was that foreign ship owners feared that they would automatically become financially responsible if their ships became involved in collisions while sailing in a wrong lane. Rather than run such a financial risk, they prefer to leave the trackage agreement on a purely voluntary status.

For years American passenger ship companies have been hampered by a steamship conference rule prohibiting them from exploiting in their advertising and publicity the fact that they sail the world's safest ships. In view of the short-sighted actions of the international conference, we think it is about time this rule was abolished—by Congressional order if necessary. It is time the public was fully informed that when it travels to or from Europe in American liners, it is sailing on the world's SAFEST ships on the SAFEST route.

Ingalls Apparent Low To Build Six Ships For Farrell Lines

The Maritime Administration in Washington, D.C., announced recently that Ingalls Shipbuilding Corporation of Pascagoula, Miss., submitted what apparently was the low bid for the construction of six new cargo ships for Farrell Lines' South and East African service.

Ingalls offered to build each of the ships for $10,441,640 on a fixed-price basis, or for $9,992,000 each on an adjusted price basis. The cost of national defense features is included in the quotation. Bids were made by 10 shipyards.

The vessels, which are to be the first in a $180,000,000 long-range fleet replacement program, are to be 572 feet long, with steam turbines giving them a service speed of 20 knots. They are to have cargo lifts of 12,401 tons and accommodations for 12 passengers.

Navy Contracts To Peterson Builders, Inc.

Peterson Builders, Inc., Sturgeon Bay, Wis., have recently been awarded contracts by the Navy Department's Bureau of Ships for the construction of two 145-foot Coastal Minesweepers (MSC Class) to be delivered in 24 and 26 months, and two 95-foot Patrol Motor Boats (PGM) which are scheduled for delivery in 12 and 14 months.

To date, Peterson Builders havecompleted and delivered five 57-foot, six 165-foot and three 181-foot Minesweepers. One 165-foot vessel is to be delivered in November of this year.

Bath Iron Works And Hyde Windlass Host New England Section

The New England Section of the Society of Naval Architects and Marine Engineers held its June meeting at Bath Iron Works, Bath, Me.

Roger M. Luke of Hyde Windlass Company, and **F. P. West, Jr.**, of Sperry Piedmont Company, authors of the paper titled, "An Integrated Steering System" which was presented at this meeting, described the latest steering gear and its control as the result of coordinated design by their respective firms which resulted in an integrated steering gear.

The history of steering gear and control design is traced down to the present with emphasis on the duplications and compromises that often resulted from separate development of these two parts of a complete steering system. The advantages of the integrated steering system were discussed. The first integrated steering system to be installed on the new Mississippi Shipping Company vessels and the steps taken in its development were described.

While the gentlemen attended the technical session in the afternoon, the ladies were taken on a cruise from Bath to Newagen, Me. Bath Iron and Hyde Windlass played host at a reception held after the meeting at the Newagen Inn, Newagen, Me.

Rear Admiral **Albert G. Mumma,** USN (ret.), President of the Society of Naval Architects and Marine Engineers, and Vice-President-Engineering of Worthington Corporation and Captain **Wilbur N. Landers,** USN (ret.), National Secretary of the Society both attended.

Copies of the paper may be obtained by writing to the Editor of the New England Section, John W. Gilbert, Central Technical Department, Bethlehem Steel Co., Shipbuilding Division, Quincy 69, Mass. Please enclose 75 cents for each copy.

Bill Introduced To Sell Liberties For Barge Use

Senator **Warren G. Magnuson** (D., Wash.) recently introduced Senate Joint Resolution 206, which would authorize the Secretary of Commerce to sell 10 Libertys to American citizens for conversion into barges. Purchasers of the ships would be required to spend approximately $100,000 in American shipyards for the conversion. Under the program, the barge operators would be prohibited from transferring the vessels to foreign registry.

Lake Shore Names Lewis Division Mgr. For All Marine Sales

W. H. Lewis

Lake Shore, Inc., Iron Mountain, Mich., large manufacturer of auxiliary marine equipment, has named **W. H. Lewis** Division Manager in charge of all marine sales, according to an announcement by **B. W. Reeve,** President of Lake Shore.

Mr. **Lewis,** who has been Marine Sales Manager for the company, will maintain offices in Iron Mountain. He will be in charge of all domestic sales of Lake Shore's line of winches, cranes, windlasses and related deck gear.

A graduate of the University of Maryland holding a degree in electrical engineering and a member of the Society of Naval Architects and Marine Engineers, Mr. **Lewis** has been associated with Lake Shore for 17 years in marine sales assignments.

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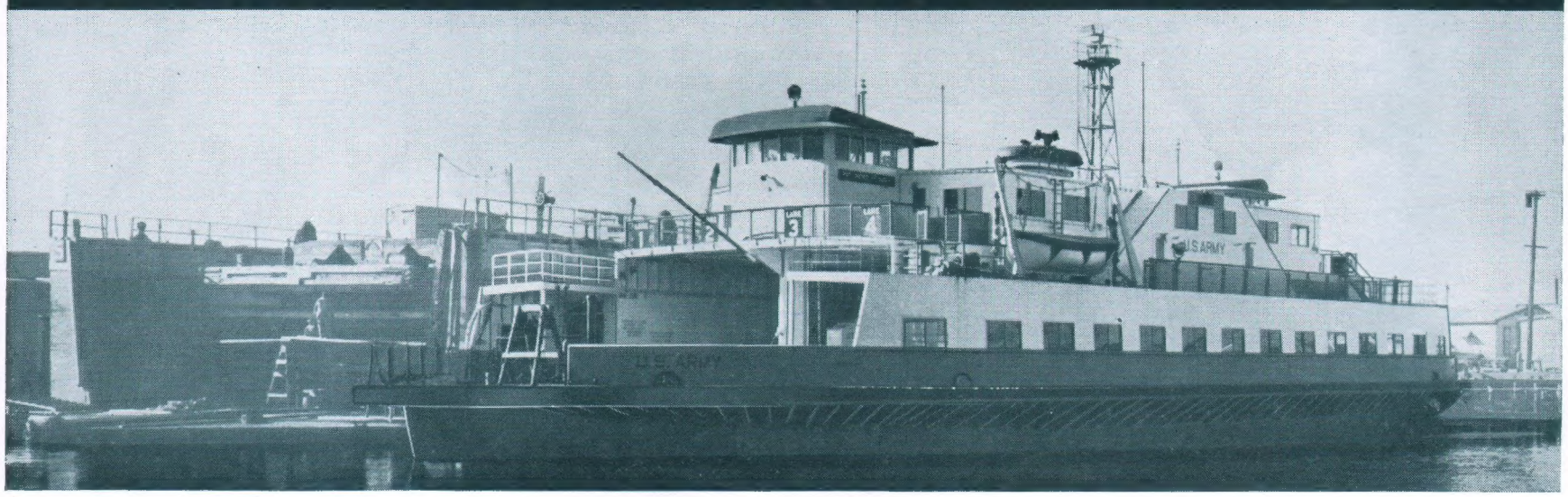

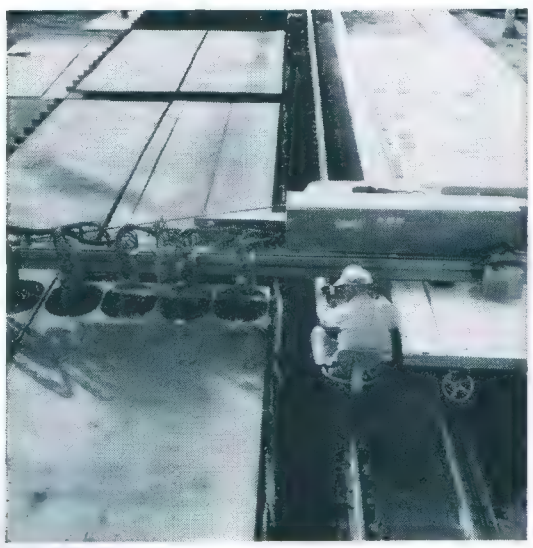

The new Linde steel-cutting machine in operation.

The only competitive advantage in shipbuilding today lies in the ability to do the job better, faster, for less.

This coordinate-drive steel cutting machine — the Linde — is a mighty factor in such production capability. It is the only machine of its kind on the West Coast — and NASSCO has it.

With incredible speed and accuracy, the Linde makes as many as eight simultaneous cuts in steel plate of virtually any size and thickness. It is electronically controlled. It minimizes waste, assures a more accurate fit of parts, makes welding easier, reduces man hours. It means faster construction from keel to superstructure. It is a better way.

American Export Lines, Inc., with a current order for six C-3 freighters, is one of many firms which have recognized NASSCO's superior time-and-cost-saving capability. That capability is not the product of machines alone. NASSCO has a highly skilled labor force, a temperate climate which speeds schedules the year 'round.

NASSCO's young, aggressive management is determined to continue finding better ways to build better ships.

NATIONAL STEEL AND SHIPBUILDING COMPANY

SAN DIEGO 12, CALIFORNIA

Sun Shipbuilding Receives Moore-McCormack Contract

Moore-McCormack Lines signed a contract in Washington recently with Sun Shipbuilding and Dry Dock Company, Chester, Pa., for the construction of a $9,439,615 cargo vessel.

The 10,500-dwt ship would be the eighth of a series of vessels of the same type either now under construction or being fitted out, according to a Moore-McCormack official. The contract with the Chester, Pa., yard was the sixth awarded to Sun Ship in this series.

The ship will be built under the vessel-replacement program of the Federal Maritime Administration. Moore-McCormack's replacement plans involve 45 ships, costing an estimated total of $650,000,000.

Blount To Repower Tug Gaspee For Providence Steamboat Co.

Blount Marine Corporation, Warren, R.I., has been awarded a contract to repower the 100-foot tug Gaspee, one of a fleet of five tugs operated by Providence Steamboat Company.

A Fairbanks, Morse Model 38D8-⅛ 1800-hp marine Diesel will be installed with a Wichita Model ATD-136 slippable clutch and Lufkin Model R-3020 reverse and reduction gear. Blount Marine Corporation will also build a new rudder and make alterations to the stern frame.

The new power package will give the Gaspee added thrust to match the King Philip and Roger Williams, which were built by Blount in 1956 and 1960 respectively.

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powerful new oceangoing
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20 OCEANGOING TUGS UP TO 4200 HP. ANYWHERE IN THE WORLD

Kings Point Review Honors British Official

Front row, left to right: Col. **T. Eustace Smith,** President of The Shipbuilding Conference, Chairman and Managing Director of Smith's Dock Company, Ltd., England; Rear Adm. **Gordon McLintock,** U.S.M.S., Superintendent, U.S. Merchant Marine Academy, and Adm. **Longley-Cook,** Director, Fairfield Shipbuilding & Engineering, Ltd. Back row, Lcdr. **John G. Stein,** U.S.M.S., Third Battalion Officer U.S.M.M.A., and **John H. Thomas,** Chairman, Eastern USA Section, Institute of Marine Engineers, Manager, Marine Division, The Perolin Company, Inc., and National Director of Maritime Affairs, U.S. Merchant Marine Academy Alumni Association.

Colonel **T. Eustace Smith,** C.B.E., T.D., J.P., D.L., President of The Shipbuilding Conference, Chairman and Managing Director of Smith's Dock Company, Ltd., England, visited the U.S. Merchant Marine Academy at Kings Point on June 18 and accepted a review of the Regiment of Cadets on Tomb Field. The review was followed by a reception given by Rear Admiral **Gordon McLintock,** Superintendent of the Academy.

During the luncheon program, Colonel **Smith** opened his pertinent remarks on the splendor of the campus and the unusual advantage of the formal educational facilities at Kings Point. He congratulated the American people for having the foresight to establish and maintain this marvelous institution for the purpose of training dedicated officers in the U.S. Merchant Marine. America has learned, full well, the importance of the first arm of commerce and the fourth arm of defense.

Given a warm reception by the Regiment of Cadets, Colonel **Smith** was presented by the Institute of Marine Engineers with a set of bronze bookends which are working models of the stern of an American liberty ship. Colonel **Smith** closed his comments by inviting the Regiment of Cadets, as the guests of The Shipbuilding Conference, to the British Exhibition at the Coliseum, New York.

After the luncheon there was a guided tour of the Engineering Department by two prominent alumni, **Nicholas Bachko,** Assistant Superintendent Engineer, U. S. Lines, and Chairman of the Ship Technical Operations Committee for the Society of Naval Architects and Marine Engineers, and **John H. Thomas,** Manager of the Marine Division of The Perolin Company, Inc., and Chairman of the Eastern U.S.A. Section of the Institute of Marine Engineers.

The event was hosted by Rear Admiral **Gordon McLintock** and **John H. Thomas.** Among those present were Admiral **Longley-Cook,** C.B., C.B.E., D.S.O., Director, Fairfield Shipbuilding & Engineering Company, Ltd., **P. G. Edwards,** Director, Smith's Dock Company, Ltd., and **E. T. Malone,** Port of London Authority. Among the members of the Institute of Marine Engineers attending were **Clifford N. Thomas** of Lloyd's Register of Shipping, **William H. Low** of American Bureau of Shipping and Dr. **John J. McMullen,** Naval Architect.

GENERAL MOTORS PARTS for General Motors Diesel Engines

Precision-built bearing shells for General Motors Diesel engines

Tie up to GM Service.

Like a General Motors Diesel engine, every component part is accurately designed and precision-built to give the user the finest product on the market today.

These engines and parts are built to give top performance in every type of rugged duty.

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Specify General Motors Diesel engines and replacement parts for reliable performance.

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CLEVELAND DIESEL ENGINE DIVISION

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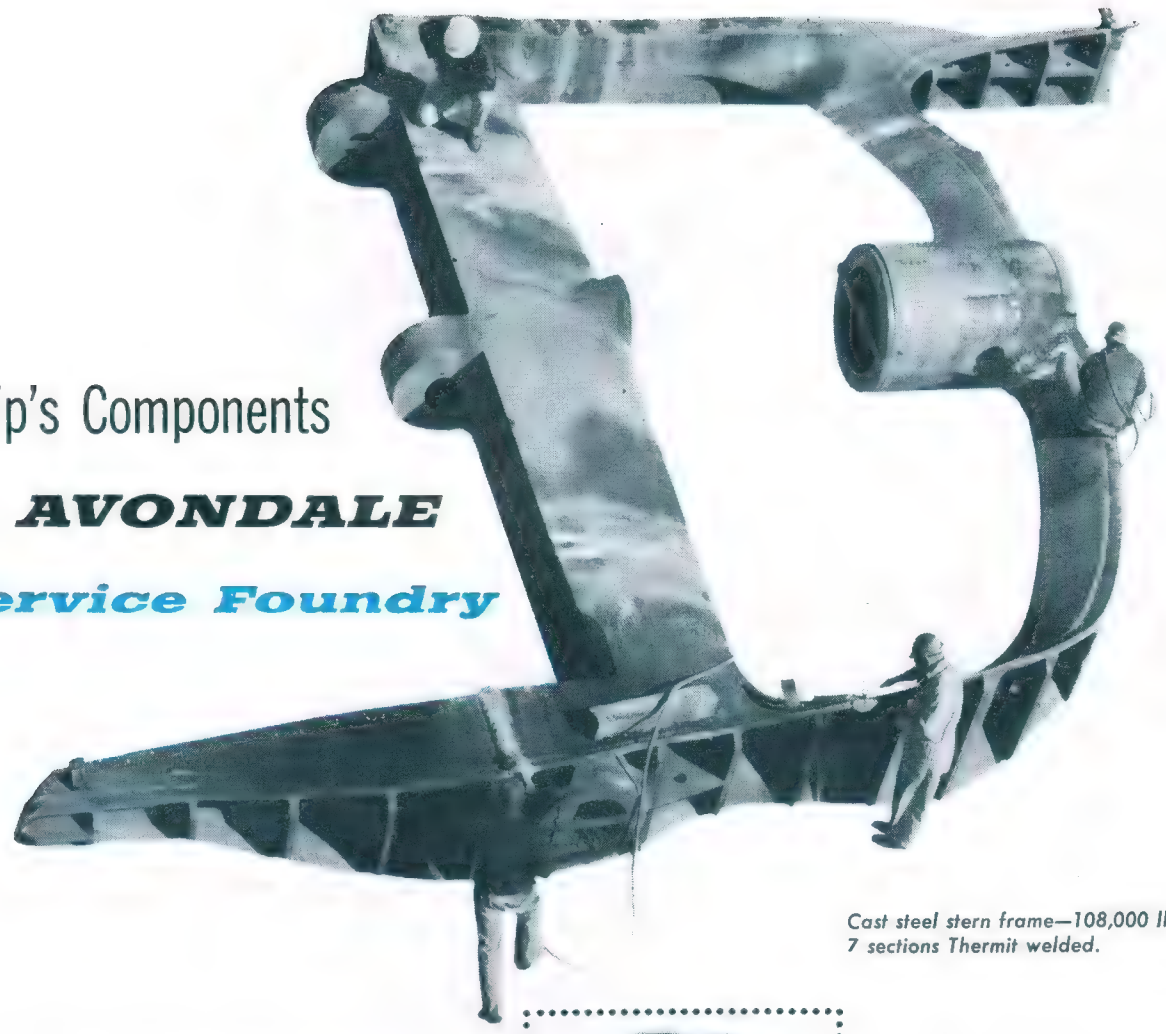
Ship's Components

by **AVONDALE**

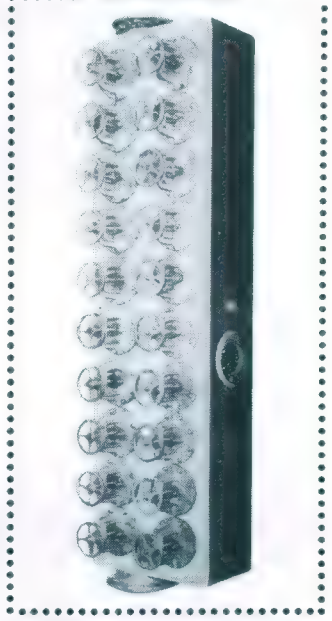
Service Foundry



Cast steel stern frame—108,000 lbs., 7 sections Thermit welded.

The large capacity casting and machining facilities of Avondale Service Foundry make it a prime source for ship's components. Years of experience in this specialized field, constant research in metallurgy, advanced engineering and manufacturing methods assure highest quality and on-time completion.

We look forward to receiving your inquiries.



Galvanized cast steel duplex manifold with twenty 6" valves.

CAST STEEL:
Stern Frames
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NYSA SAFETY AWARDS: The New York Shipping Association, Inc., recently presented representatives of 25 steamship lines, contracting stevedores and port watchmen's organizations with inscribed bronze plaques and certificates of commendations for having reduced accident frequency on the waterfront in the Port of New York during the past year. The eighth annual awards distribution, conducted by the Safety Bureau of NYSA, was made at a luncheon meeting before approximately 200 steamship officials at the Downtown Athletic Club, New York City. **Vincent G. Barnett,** Chairman of the Board, Barber Steamship Lines, and NYSA President, made the presentations. Award winners are as follows: Rear row, left to right: **James E. McCue,** Bay Ridge Operating Co., Inc.; Capt. **James Aldrick,** Atlantic Stevedoring Co., Inc.; **Scott Blanchard,** Turner & Blanchard; **John F. Kerwin,** Commercial Stevedoring Co., Inc.; **William Hendricks,** International Terminal Operating Co., Inc.; **Gus Ferrar,** Standard Fruit & Steamship Co.; **Michael Maher,** Maher Stevedoring Co., Inc., and **Joseph DiDomenici,** Marra Bros., Inc. Middle row, left to right: **Harry Tietjen,** Grace Line Inc.; **Clarence Gunther,** Luckenbach Steamship Co., Inc.; Capt. **Arthur Whypler,** Universal Terminal & Stevedoring; Capt. **G. H. E. Buxton,** NYSA Safety Bureau; **J. A. Nealy,** American Sugar Refining Co. of N. Y.; Capt. **C. Keus,** Maude-James, Inc.; **F. Chiarello,** Pittston Stevedoring Corp.; Capt. **S. Blackledge,** American Export Lines, Inc., and **F. E. Morace,** Morace Stevedoring Corp. Seated, left to right: **Andrew Warwick,** T. Hogan & Sons; Capt. **Robert Skinner,** United States Lines Co.; **Alexander P. Chopin,** Chairman NYSA; **V. G. Barnett,** President, NYSA; Capt. **F. Van Geert,** Transoceanic Terminal Corp.; **James McCormack,** Jules S. Sottnek Co., Inc., and **J. Vogele,** Atlantic Overseas Corp.

Two Executives Move At Foundation Maritime

As a result of the growth and expansion of marine and construction operations of Foundation Maritime Limited two executive changes have taken place, according to a recent announcement by **L. J. McGowan,** President of the parent organization, The Foundation Company of Canada Limited. Reflecting the increased commitments of Foundation Maritime Limited in the St. Lawrence River, **A. G. Sullivan,** President of Foundation Maritime will move from Halifax to the head office of the parent company in Montreal. **J. Roger Mills,** Vice-President of Foundation, will move from Toronto to Halifax as Vice-President and General Manager of the company.

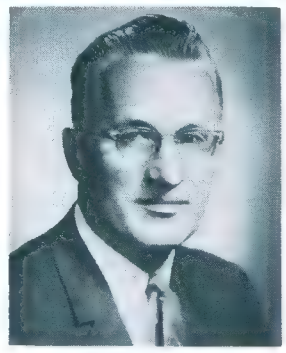
Metalweld Appoints W. R. Wright Sales Mgr.

The appointment of **William R. Wright** as Sales Manager of the Protective Coatings Division of Metalweld, Inc., Philadelphia, Pa., has recently been announced by **Kenneth G. LeFevre,** the company's Executive Vice-President.

Mr. **Wright,** who has been associated with Metalweld, Inc., for the past 18 years, will, in his new capacity, be responsible for the total sales operation of the Protective Coatings Division which specializes in the application of all types of linings and coatings for the control of industrial corrosion and contamination.

Mr. **LeFevre** also announced the appointment of **William B. Wilson** as General Field Superintendent and **John C. Adolph** as Office Manager.

Babcock & Wilcox Appoints Ziegenhagen



M. E. Ziegenhagen

M. Nielsen, President, Babcock & Wilcox Company, New York, has announced the appointment of **M. E. Ziegenhagen** as Director of Advertising and Public Relations.

His experience in advertising and public relations spans 12 years of service with the General Electric Company and eight years as manager of these activities with the Worthington Corporation.

Mr. **Ziegenhagen,** who will be responsible at the corporate level for the direction and centralized coordination of advertising and publicity and will serve all company divisions and subsidiaries in these functions, will report to the Vice-President in charge of the Staff division. He will make his headquarters in the Babcock & Wilcox general offices in New York City.

Star Line Names Ciaputa VP Operations

Star Line Agency, Inc., 80 Broad Street, New York, N.Y., General Agents for Mediterranean Star Line, Inc., and Crescent Line, has announced the promotion of **Stanley J. Ciaputa** as Vice-President in charge of Operations.

Sealol Names R. Durrett NY Regional Sales Mgr.

Richard D. Durrett has been named New York Regional Sales Manager of Sealol, Inc., manufacturers of precision mechanical seals, according to a recent company announcement.

Mr. **Durrett,** who joined Sealol in 1953, was most recently a sales engineer for the company in Dayton, Ohio. Prior to that, he had similar duties in Kansas City, Mo., Philadelphia, Pa., and Tulsa, Okla.

A graduate of New York State Maritime College, Class of 1938, Mr. **Durrett** is presently a Lieutenant-Commander in the U.S. Naval Reserve.

Capt. Arrington To Third USCG District

It has been announced that Captain **Charles B. Arrington,** USCG, has reported to the Commander, Third Coast Guard District, New York, N.Y., for duty as Chief of Staff and Deputy Commander Eastern Area.

Captain **Arrington** will relieve Captain **Marius DeMartino,** who is to become the Commanding Officer of the U.S. Coast Guard Training Station at Groton, Conn. Captain **DeMartino** has been serving in the Third Coast Guard District since July 1958. Captain **Arrington** had been Chief of Staff of the Second Coast Guard District in St. Louis, Mo., since June 1959.

Gray To Manage Flying A Company Marine Department

Harry E. Gray of Tidewater Oil Company has been appointed Marine Department Manager of the Flying A Company, it was announced by Vice-President **Charles R. Brown,** western division General Manager.

Formerly Tidewater's Marine Supervisor at San Francisco, Mr. **Gray** joined the petroleum firm in 1913 as an office boy in the auditing department. He became a gauger and clerk, then Assistant Port Steward and in 1927 was named Bay Vessel Dispatcher in the San Francisco area.

He was named assistant to the marine department manager in 1949 and two years later was placed in charge of the Flying A Company marine operations in San Francisco.

A veteran of World War II, Mr. **Gray** rose to the rank of Commander in the United States Navy, and served as skipper of the Naval Fuel Annex at Point Molati, Richmond, Calif.

M. Mack Earle Opens Baltimore Office For Private Practice

M. Mack Earle has resigned as Chief Naval Architect of the Maryland Shipbuilding and Drydock Company and has entered into private practice as a Consulting Naval Architect with offices at 1602 Timbercrest Drive, Baltimore 28, Md.

Mr. **Earle** is a graduate of the Department of Naval Architecture and Marine Engineering, University of Michigan. He was associated with the Dravo Corporation in Pittsburgh until 1937, when he joined the staff of The Maryland Drydock Company where he served in various capacities until named Chief Naval Architect in 1956. Generally accredited with the development of the jumboizing process by means of which many structurally obsolete T2 tankers have been modernized and enlarged, Mr. **Earle** has also been closely associated with conversions of oceangoing vessels for the Great Lakes. His paper, "The Conversion of T2 Tankers for Great Lakes and Seaway Service" as presented to the Great Lakes Section, SNAME, has been widely circulated both nationally and overseas.

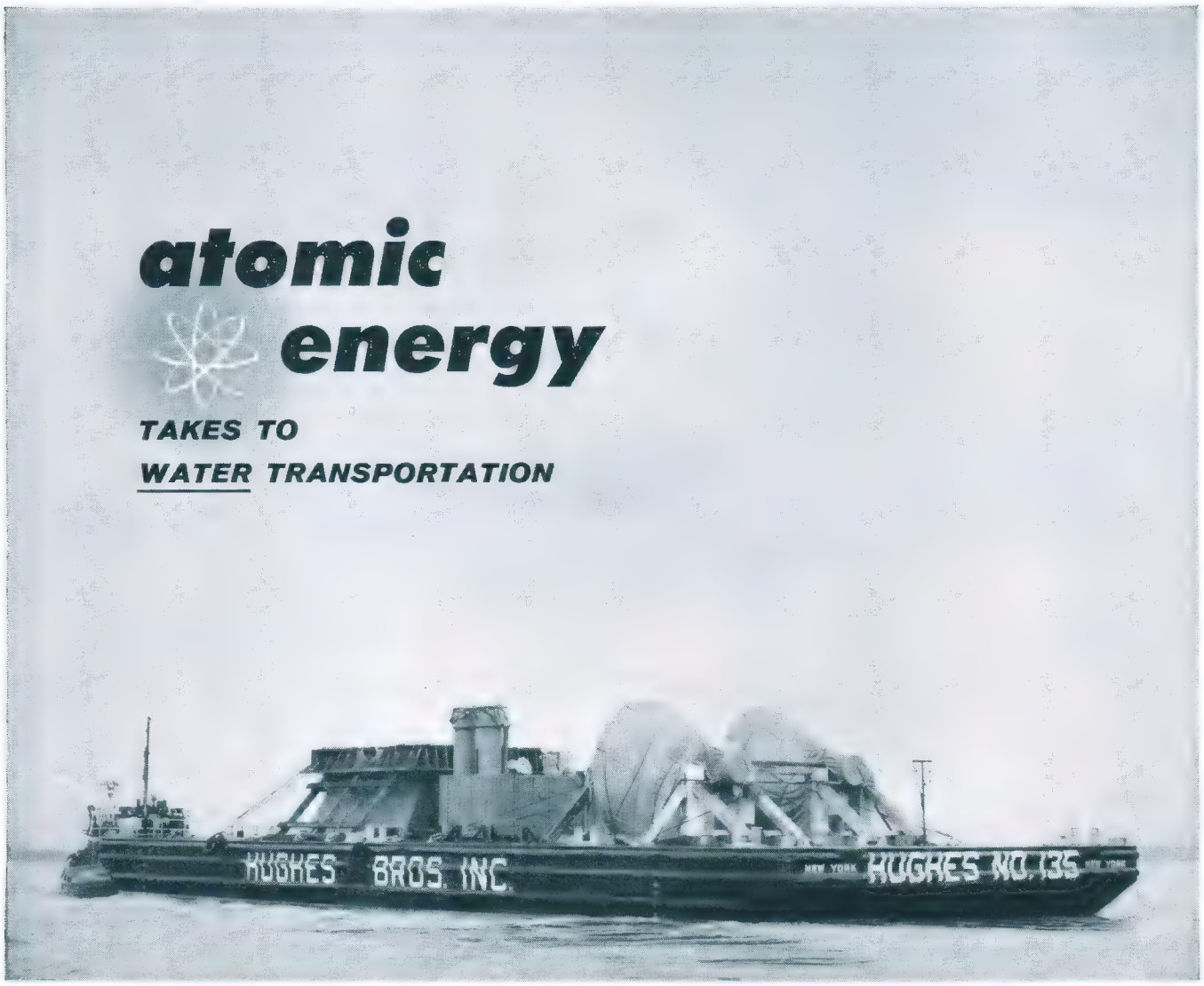
He is a member of the Society of Naval Architects and Marine Engineers, having served as Chairman of the Chesapeake Section in 1959-60, and is currently a member of the Executive Committee of that Section and the National Papers Committee. He is also a member of the American Society of Naval Engineers, The Royal Institute of Naval Architects, North East Coast Institute of Engineers and Shipbuilders, The Institute of Engineers and Shipbuilders in Scotland, The International Cargo Handling Coordination Association, and the U.S. Naval Institute. He is serving as Chairman of the Ship Structure Subcommittee Advisory Panel for the preparation of "A Guide to the Design of Structural Details in Ships," Project SR-148. He is a Registered Professional Engineer in the State of Maryland and is a member of the National Society of Professional Engineers.

M. Mack Earle

atomic energy

TAKES TO

WATER TRANSPORTATION

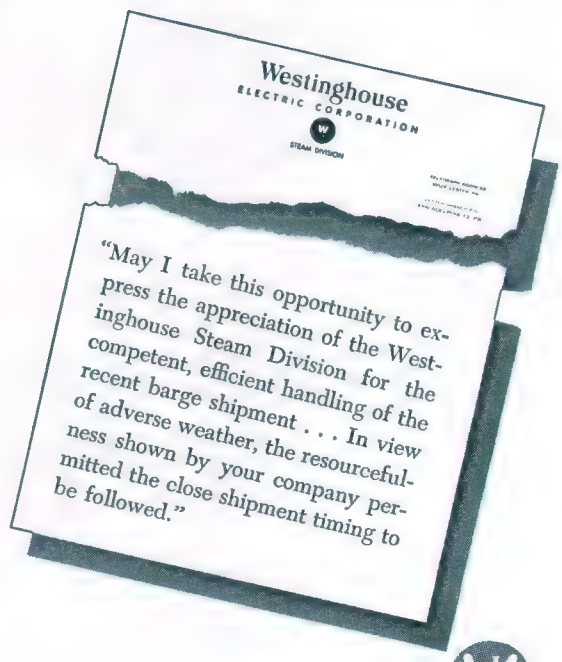


HOW Westinghouse SHIPS HIGH VALUE COMPONENTS

Turbine equipment weighing 350 tons became the responsibility of HUGHES for shipment to the new CON EDISON Atomic Power Plant at Indian Point, N. Y. Manufactured by Westinghouse, Philadelphia, these 5 large components were loaded on a sea-going barge and towed from Chester, Pa., via the Atlantic and up the Hudson River . . . with on-site delivery right on schedule!

HUGHES has the answers for shipment of fabrications too weighty or bulky for road or rail, for kid-glove handling of precision machinery, large or small. For shipping products in bulk, for movement of Contractors' supplies, Water Transportation is first for economy, best for you.

Over 60 Years' Experience . . . a whole modern fleet of barges, scows and floating equipment for every requirement . . . at your service from Florida to Maine; on the Great Lakes, Inland Waterways and St. Lawrence Seaway. Prompt attention to your inquiries.


Westinghouse
ELECTRIC CORPORATION
STEAM DIVISION
"May I take this opportunity to express the appreciation of the Westinghouse Steam Division for the competent, efficient handling of the recent barge shipment . . . In view of adverse weather, the resourcefulness shown by your company permitted the close shipment timing to be followed."

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CLEARING HOUSE FOR MARINE DIFFICULTIES SINCE 1894

Boston Metals Names Miller To Great Lakes Post

Robert Miller

The appointment of **Robert Miller,** independent marine engineer, as Great Lakes area representative for the Boston Metals Company of Baltimore, Md., has been announced.

Covering the territory from Buffalo to Duluth, Mr. **Miller's** experience includes several years at sea as well as in the shipyards. Well acquainted with the Lakes fraternity, he was a Foster-Wheeler construction superintendent as well as their marine representative.

Mr. **Miller** will be available for expert advice on generators, turbines, winches, pumps and all other related equipment handled by Boston Metals.

Calship, Inc., Building Barge For Tug Alamo

Tug Alamo, Inc., has ordered a 64-foot cargo barge from Calship, Inc., Sulphur, La. The vessel is to be equipped with a 500-hp Diesel.

Combination Launching And Keel Laying

National Steel And Shipbuilding Launches Export Aide And Lays Keel For Freighter Of Engine Aft Design

Immediately after the launching of the Export Aide, a keel was laid for an engine-aft design freighter, also for American Export Lines. J. J. Henry, Inc., Philadelphia and New York firm of naval architects, are design agents for the engine-aft type cargo vessel.

A crowd, estimated at 5,000 witnessed the first combination launching and keel-laying ceremonies to be held at National Steel and Shipbuilding Company in San Diego, Calif. The afternoon ceremony saw the launching of the 10,000-ton Export Aide, second in National's current series of six built for American Export Lines, Inc., and the subsequent keel laying of Hull No. 325, a 10,000-ton dry cargo freighter of an engine aft design, also for American Export Lines.

The ceremony started with music from the United States Marine Corps Recruit Depot Band as a prelude to the hoisting of the colors by a full dress Marine Corps Color Guard from the same installation. Captain **John Shilling,** Force Chaplain, Cruiser Destroyer Force, Pacific Theatre, gave the invocation, followed by an address by **Edgar F. Kaiser,** Chairman of the Board and President of National Steel and Shipbuilding Company. Speakers following Mr. **Kaiser** were Admiral **John M. Will,** USN (ret.), President of American Export Lines, Inc.; **Thomas E. Stakem,** Vice-Chairman of the Federal Maritime Board, and Representative **John F. Shelley,** Member of Congress, 5th District, California. **Mrs. John F. Shelley,** wife of Congressman **Shelley,** sponsored the vessel, with **Mrs. Robert Mayer** as Matron of Honor.

Immediately following the christening ceremony, a crew of waysmen and shipwrights set up prefabricated staging and blocking to accommodate the keel of Hull 325. Minutes later, a huge keel section was swung into place and officially laid in place by **Mrs. Thomas E. Stakem.**

The Export Aide, Hull No. 319, is identical in all respects to her sister ship, the Export Agent, launched January 30, 1960 (see complete description Maritime Reporter, March 1, 1960 issue). She has accommodations for 12 passengers and a dry cargo capacity of 550,000 cubic feet in addition to special cargo capacity of 3,000 cubic feet. The ship has a design speed of 18½ knots under a normal shaft horsepower of 12,500. The Export Aide's propulsion unit, furnished by General Electric, consists of a high pressure turbine operating at 6,593 revolutions per minute, and a low pressure turbine operating at 3,172 rpm. Propeller shaft speed is 107 rpm. Two Babcock-Wilcox two-drum type marine boilers provide the ship with steam. These boilers operate at 615 psi at a temperature of 850 degrees Fahrenheit. Each boiler has a normal steam flow of 48,400 pounds per hour.

On deck, the Export Aide features quick acting Greer hydraulic hatch covers providing safe and efficient operation of cargo hatches.

This launching, second in less than five months, indicates that National's specialization in this field is paying dividends to her new owners. NASSCO's $60,000,000 backlog in C3 construction is the highest in the nation for this type vessel.

Edgar F. Kaiser, Chairman of the Board and President of NASSCO welcomed the guests to the twin ceremony.

Congressman John F. Shelley assists Mrs. Shelley in the bottle breaking that sent the Export Aide down the ways.

MARINE LOCKERS SHELVING CABINETS

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These Solder Seal 'CHEMICAL TOOLS'
CUT maintenance COSTS!

For leakproof, pressure-tight connections...

TiteSeal Gasket & Joint SEALING COMPOUNDS

Seals against gasoline, oil, salt water. Will not shrink, crack, or crumble. Prevents rust and corrosion, makes disassembly easy.

Loosens rust, corrosion almost instantly

Quickly frees 'frozen' parts

LIQUID WRENCH® the Super-Penetrating RUST SOLVENT

A powerful blend of fast-acting solvents that literally "melts the rust away"—yet is absolutely safe to use on all metals and alloys.

At your Marine Supply or Industrial Jobber

2195 QUALITY SOLDER SEAL PRODUCTS

Manufactured by RADIATOR SPECIALTY CO.
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DRAVO PIONEER—First of Tomorrow's Tugs

Why the new DRAVO PIONEER
outperforms all other 1600-hp tugs

Complete Maneuverability

Astern steering equal to ahead steering

Bollard Pull

Ahead–55,000 lbs. at 1575 shp
(6-knot wheel)
Astern–34,000 lbs. at 1525 shp

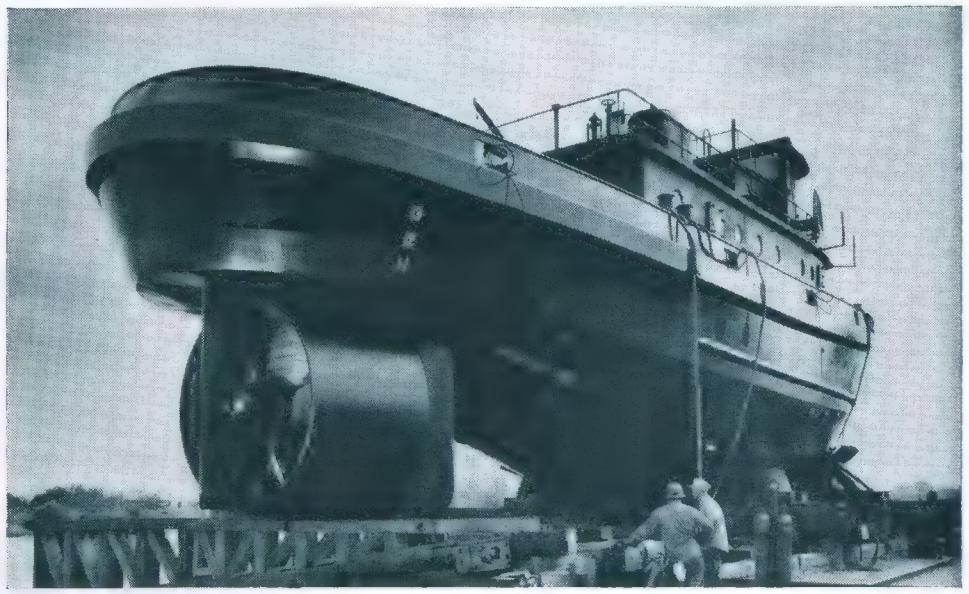
Line Pull

25% more at 6 knots

Free Speed

12.85 knots at 1150 shp

Now operating in New York Harbor, the DRAVO PIONEER has proved to be the most versatile and powerful vessel of its type built to date. It's the type of tug you need to increase the profitability, efficiency, and safety of your operations. For full information, send for Bulletin 244; or ask to see color movies of the DRAVO PIONEER in action. Write or call Marine Department, Dravo Corporation, Pittsburgh 25, Pa.; (SPalding 1-1200).



PRECISION-BALANCED PROPULSION—an exclusive Dravo development – is the reason the DRAVO PIONEER performs so much better than conventional tugs. In the PBP system, Kort nozzle, hull lines, backing and steering rudders, and propeller are designed and tested as a unit. The result: exceptionally efficient operation and powerful control under all conditions.

Two additional Pioneer class tugs are available for early delivery

DRAVO
CORPORATION

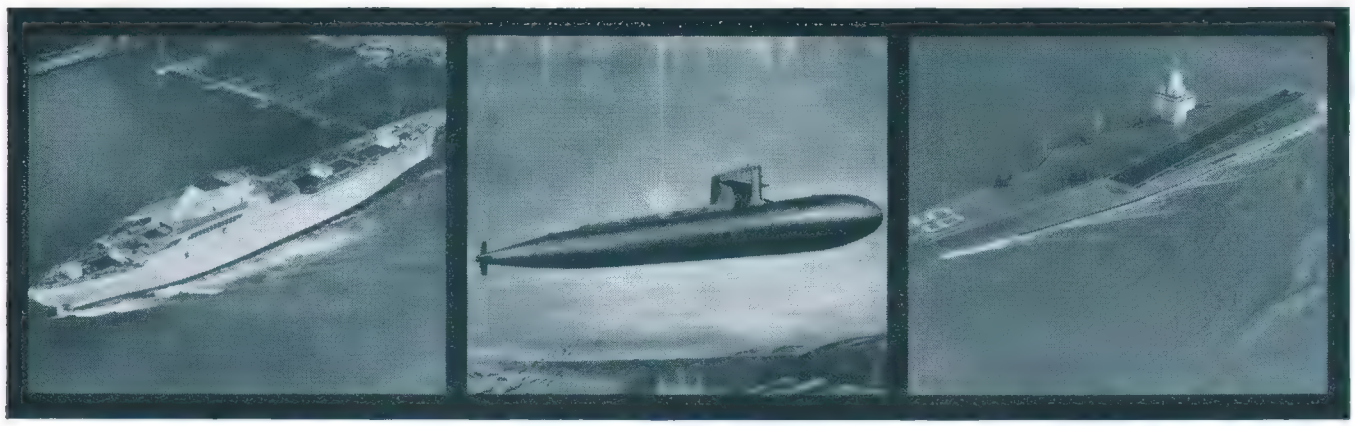
Dry Dock Association Re-elects Officers

James E. Reynolds, Jr., President of O'Brien Brothers Shipyard Corporation, Rosebank, Staten Island, N.Y., was re-elected President of the New York and New Jersey Dry Dock Association for a second term at its annual meeting held recently. **A. Johnson Grymes 3rd,** President of Brewer Dry Dock Company, Mariners Harbor, Staten Island, was re-elected Treasurer, and **Edward V. Gross** of the firm of Watters & Donovan, 161 William Street, New York City, counsel for the Association, was re-elected Secretary.

Mr. **Reynolds** first became associated with the ship repair industry in 1939 when he entered the employ of Todd Shipyards Corporation, serving with the Brooklyn and Hoboken Divisions and at the main office in New York until 1949. He left the Todd company in that year to become New York Sales Representative for Savannah Machine & Foundry Company and O'Brien Brothers Shipyard Corporation, a position which he held until 1956 when he was elected President of the latter organization. He is a member of the Society of Naval Architects and Marine Engineers, The Propeller Club, Downtown Athletic Club, Maplewood Country Club and Marine Exchange.

Mr. **Grymes,** who resides in Essex Falls, New Jersey, has been with Brewer Dry Dock Company since 1949 and has been President of the company since 1953. He attended Yale University and is a member of the Whitehall Club, Montclair Golf Club, New York Yacht Club, The Propeller Club and the Maritime Association of the Port of New York.

Elected to the Executive Committee were **Francis B. Bushey,** President of Ira S. Bushey & Sons, Inc.; **LeRoy B. Halsey,** Assistant to the General Manager, Eastern Ship Repair District, of the Shipbuilding Division of Bethlehem Steel Company; **Anthony J. McAllister,** President of Coastal Dry Dock and Repair Corporation; **James S. Nelson,** Vice-President of Marine Basin Company, and **R. J. Vanderwende,** General Manager of Todd Shipyards, Hoboken Division.



Nuclear Ship "NSS SAVANNAH" **Builder** New York Shipbuilding Corporation **Decking** Selby, Battersby & Co.

Nuclear Submarine "USS GEORGE WASHINGTON" **Builder** Electric Boat Division, General Dynamics Corp. **Decking** Selby, Battersby & Co.

Nuclear Aircraft Carrier "ENTERPRISE" **Builder** Newport News Shipbuilding and Drydock Corporation **Decking** Selby, Battersby & Co.

AMERICA'S

NEW NUCLEAR FLEET CHOOSES SELBY DECKING!

Decking, both weather and interior . . . has been our specialized business for over 35 years. When decking was needed for America's brilliant new nuclear fleet, Selby was selected on the basis of unqualified experience, superior materials, fully skilled hands and a sense of corporate responsibility.

Of major significance was Selby's ability to coordinate efficiently with the builders and hundreds of component suppliers across the country enabling the Selby team to deliver a professional installation . . . on time!

SELBY, BATTERSBY & CO.
5220 Whitby Ave. • Phila. 43, Pa.

Komul • Selbalith • Selbatex • Ceramic Tile • Hull Insulation • Resilient Decking • Foranaft Underlayment • Desco Bulk Head Coatings

Capt. Stilwell Named To Ship Structure Subcommittee Post

Capt. J. J. Stilwell

The Chairman of the Ship Structure Committee, Rear Admiral **E. H. Thiele,** USCG, announced recently that Captain **J. J. Stilwell** had assumed his duties as new Chairman of the Ship Structure Subcommittee when he relieved **Captain N. Sonenshein** of this post.

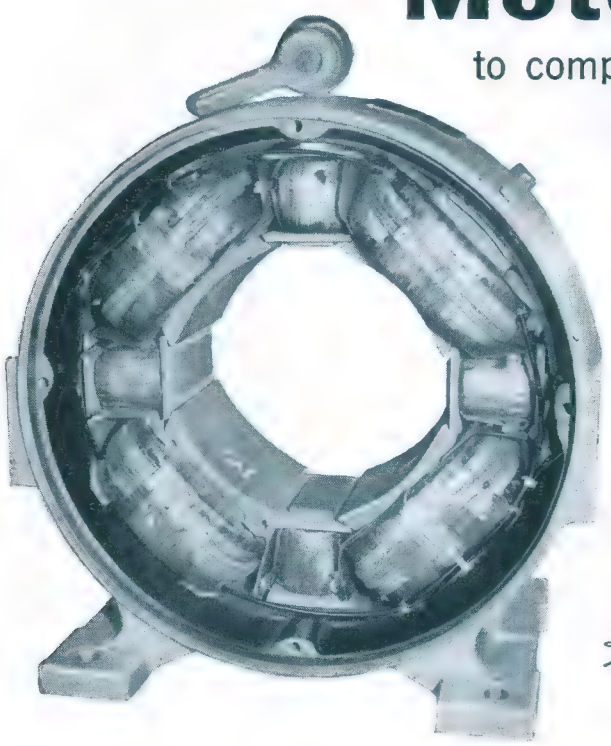
Captain **Stilwell** comes to his new duties in this research program with a long background in ship design and construction. At present, he is Head of the Preliminary Design Branch of the U.S. Navy, Bureau of Ships.

The Ship Structure Committee was formed in 1946 by the Secretary of the Treasury. Today its membership includes four federal agencies, the Navy's Bureau of Ships and Military Sea Transportation Service, the Coast Guard and the Maritime Administration, and one private organization, the American Bureau of Shipping. The Ship Structure Subcommittee, consisting of representatives of the member agencies and liaison representatives from other interested organizations, is the working arm of the Ship Structure Committee. Under the direction and guidance of the Ship Structure Committee, the Subcommittee plans, organizes, and administers the program of the Committee.

Motor Overhauling

to comply with the most rigid marine standards

Complete electrical and mechanical facilities for power undercutting, chamfering, turning and milling of commutators; dynamic balancing; spraying.



A complete marine electrical service including
REWINDING • REPAIR • MAINTENANCE • INSTALLATION
of power, lighting and communication equipment

HOSE-McCANN CORP.
MARINE ELECTRICAL ENGINEERS AND CONTRACTORS
25TH ST. & 3RD AVENUE, BROOKLYN 32, N. Y. HYACINTH 9-1200
AFFILIATED WITH HOSE-McCANN TELEPHONE CO., INC.
Originators and Pioneers of Sound Powered Telephones for Marine Use

Decca Radar
is proud
that its
TRUE MOTION RADAR
has been selected for use
on the
LEONARDO DA VINCI

Over 600 Decca True Motion Radar sets are in use at sea

Orders for all types of Decca Marine Radar sets total nearly 10,000.

SERVES THE WORLD
THROUGHOUT THE WORLD

DECCA RADAR INC.

386 PARK AVENUE SOUTH

NEW YORK 16, N. Y.

Gibbs To Build Vessels For New Orleans Firms

Gibbs Corporation, Jacksonville, Fla., will build a 65-foot 800-hp river towboat for Jack Neilson, Inc., New Orleans.

For Delta Midstream Fueling Service of New Orleans the same yard will construct an oil barge, measuring 115 feet by 30 feet by seven feet. The vessel will be of approximately 200 gt.

Harry X. Kelly Receives Brazilian Decoration

Harry X. Kelly, Chairman of the Executive Committee of the Mississippi Shipping Company, Inc., (Delta Line), New Orleans, has received one of Brazil's highest civilian decorations, the Order of the Southern Cross. The decoration was presented by **Walther Moreira Salles,** Brazilian Ambassador to the United States, during a three-day visit to New Orleans.

Ambassador **Salles** said that Delta Line "performed an important role for the improvement of commercial ties between Brazil and the United States" by being a pioneer in such trade. "Mr. **Kelly,** in his administration of the business, aided this commerce considerably by his personal interest and contact with Brazil," according to the Brazilian Ambassador.

In accepting the decoration, Mr. **Kelly** expressed his sincere appreciation and, pointing to the growing commerce between the Republic of Brazil and the United States, said, "In this turbulent world of today, we have been standing together and must continue to stand together if we are to look forward to international peace."

Harry X. Kelly (left), Chairman of the executive committee of the Mississippi Shipping Company (Delta Line), is decorated with Brazil's Order of the Southern Cross by Ambassador **Walther Moreira Salles,** Brazilian Ambassador to the United States.

Union Barge Line Names William Burks To New York Post

William R. Burks

William R. Burks has been named General Agent by Union Barge Line Corporation and will supervise all activities of the Pittsburgh firm's New York City office, located at 19 Rector Street.

A member of the New York Traffic Club, he has also been associated with the National Industrial Traffic League, Southeast Shippers Advisory Board and the Atlantic States Shippers Advisory Board.

Union Barge Line operates throughout the Mississippi River System and the Gulf Intracoastal Waterway using more than 300 barges of all types. The company has one of the largest fleets of liquid cargo barges on the inland waterway.

Barge Traffic On Ohio Reached Peak In 1959

Barge traffic on the Ohio River is getting steadily bigger, and shipments are going longer distances, according to a statement by The United States Engineers, Cincinnati, Ohio. The Engineers reported 1959 barge shipping was at an all-time high in tonmiles.

Wiley Model 116 crane unloading bars of copper from a Wiley deck cargo barge for Henry Gillen's Sons Lighterage, Inc.

WILEY... for dependable ENGINEERING & WORKMANSHIP...

The Model 116 barge mounted Wiley Whirley crane shown above is owned and operated by Henry Gillen's Sons Lighterage, Inc., in the New York Port area, and has a capacity of 15 tons at a 30 ft. radius.
The president, Henry S. Gillen, is very pleased with his Wiley equipment, and recently made the following statement:

"Our Wiley built floating cranes and deck barges have contributed much toward increasing the efficiency of the handling of heavy metals and general cargoes in the Port of New York. Since their commission three years ago, we have found that the engineering and workmanship built into these units has paid off in faster turn arounds and safer towing under all kinds of weather conditions."

A SUBSIDIARY OF RIC REPUBLIC INDUSTRIAL CORPORATION

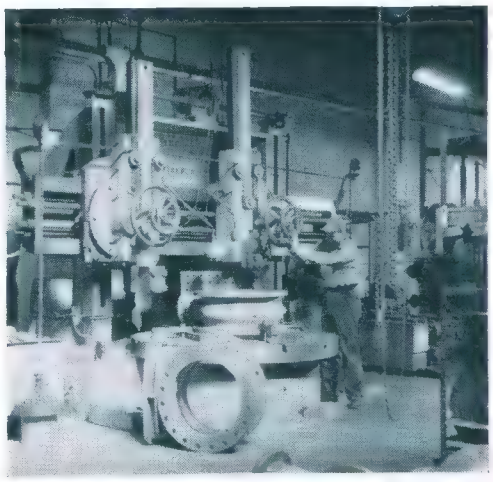
WILEY MANUFACTURING COMPANY
Port Deposit, Md.

COAL BARGES • FLOATING CRANES • PILE DRIVERS • TUG BOATS

Write for free 38-page illustrated brochure, showing Wiley cranes, barges, tugs, etc., on the job.

IMMEDIATE
VALVE REPAIRS
24 or 48 HOUR SERVICE
FROM MAINE TO FLORIDA

Fitting a wedge to its body.



Machining seat rings of a 20 inch valve.

Individually Tested and Guaranteed

We are specialists in the art of REBUILDING MARINE VALVES

IRON • BRONZE • CARBON STEEL • STAINLESS

All types and sizes through 36"

GATE
GLOBE
ANGLE
AUTOMATIC NON-RETURN
SWING AND LIFT CHECK
HOSE VALVES
CARGO GATE VALVES

Individually tested in accordance with applicable ASA Standards

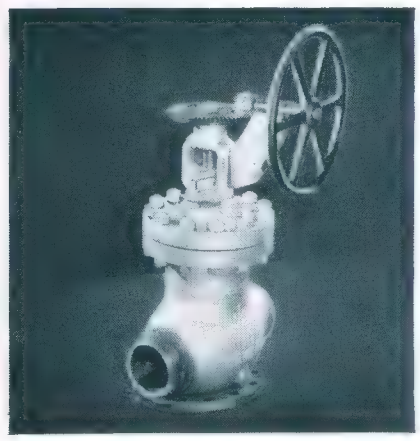
The most complete VALVE REBUILDING SHOP in the country

offers:

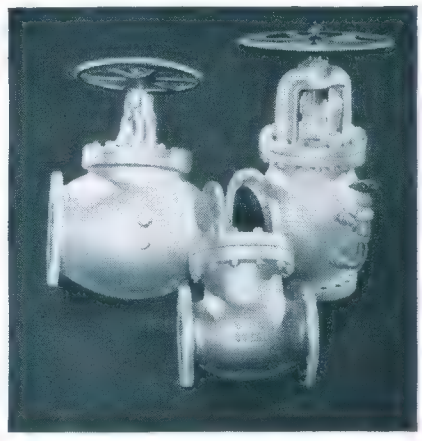
- ***Immediate** valve repairs and rebuilding, priced at a fraction of new valve costs.*
- ***Exchange Service:** in many cases we can exchange your old valves for rebuilt, guaranteed valves.*
- ***Outright Purchase:** Avail yourself of a 3000 ton valve inventory located on the New York waterfront.*
- ***Guarantee:** Equal to the guarantee issued by the manufacturer of the valve.*

VALVE CONVERSIONS

It may very well be that the idle used valves you own can be converted by us to a type for which you have an immediate need.



A former flanged end valve converted to butt weld and bevel geared.



Among these valves is a 12" angle valve to which we have added a by-pass.

1. **Flanged ends converted to butt-weld.**
2. **By-pass connections.**
3. **Globe valves converted to stop and check valves.**
4. **Bevel or spur gearing applied to your existing valve.**
5. **Stelliting**
6. **Convert valve trim from one type to another.**

VALVE REBUILDERS, Inc.
129-31st ST. • BROOKLYN 32, N.Y. • JAckson 2-4000

Newport News Shipbuilding Elects Ireland And Robertson, N. L. Rawlings Resigns

The Board of Directors of the Newport News Shipbuilding and Dry Dock Company has announced the election of two Vice-Presidents and the resignation of another. **N. L. Rawlings,** Vice-President, Nuclear Power Activities, resigned and was succeeded by **M. L. Ireland, Jr.,** who formerly held the position of Atomic Power Engineer. **L. C. Robertson,** Manager of the Ship Repair Sales Department, was elected Vice-President in charge of Ship Repair.

Mr. **Rawlings** joined the Newport News shipyard in September 1947, following his retirement from the Navy as a Rear Admiral. He was made Assistant General Manager of the yard in 1949 and General Manager in 1950. Elected a Vice-President of the company in January 1953, he continued in the post of General Manager when elected Executive Vice-President the following year. He was elected a Director of the company in 1955, and relinquished the position of General Manager. In January of this year Mr. **Rawlings** resigned the post of Executive Vice-President and became Vice-President, Nuclear Power Activities, in order to devote his full time to the company's growing nuclear power work. He will continue as a member of the Board of Directors and Chairman of the Executive Committee.

Mr. **Ireland** graduated from the University of Michigan in 1926 with a B.S. in marine engineering. He came to work in the shipyard in June of that year as a designer in the Engineering Technical Department. In December 1946, he was promoted to Engineer in charge of that department, and in November 1950, he was made Assistant Chief Engineer. In January 1955, he was appointed Atomic Power Engineer.

M. L. Ireland, Jr.

L. C. Robertson

Mr. **Robertson** has been an employee of the shipyard for 43 years and is the first graduate of the company's Apprentice School to become an officer of the company. First employed in August 1917, he graduated in March 1922 from the school. From 1920-1922 he worked in the Hull and Engine Design Department. In July 1922 he was transferred to the Ship Repair Section and became Manager of that Department in December 1936. In November 1955 he was made Manager of Ship Repair Sales.

Adm. Wilson Receives Senate Approval

The nomination of Vice-Admiral **Ralph E. Wilson** to a four-year term on the Federal Maritime Board, which began July 1, was approved by the Senate.

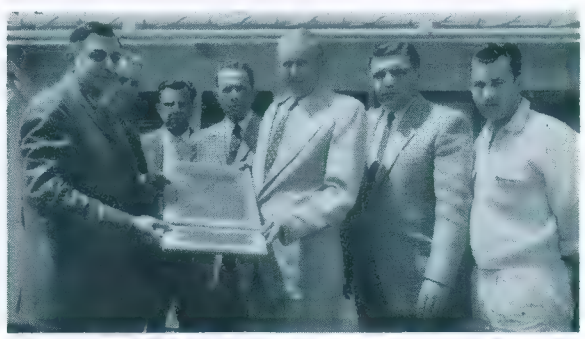
Admiral **Wilson,** who retired as Deputy Chief of Naval Operations for Logistics June 30, is expected to be designated as Chairman of FMB and Maritime Administrator.

During testimony before the Senate committee, Admiral **Wilson** said he was a political independent.

Thomas E. Stakem, the Vice-Chairman, is a Democrat and **Sigfrid B. Unander** is a Republican.

N.Y. Chamber Of Commerce Elects Lloyd Dalzell To Shipping Post

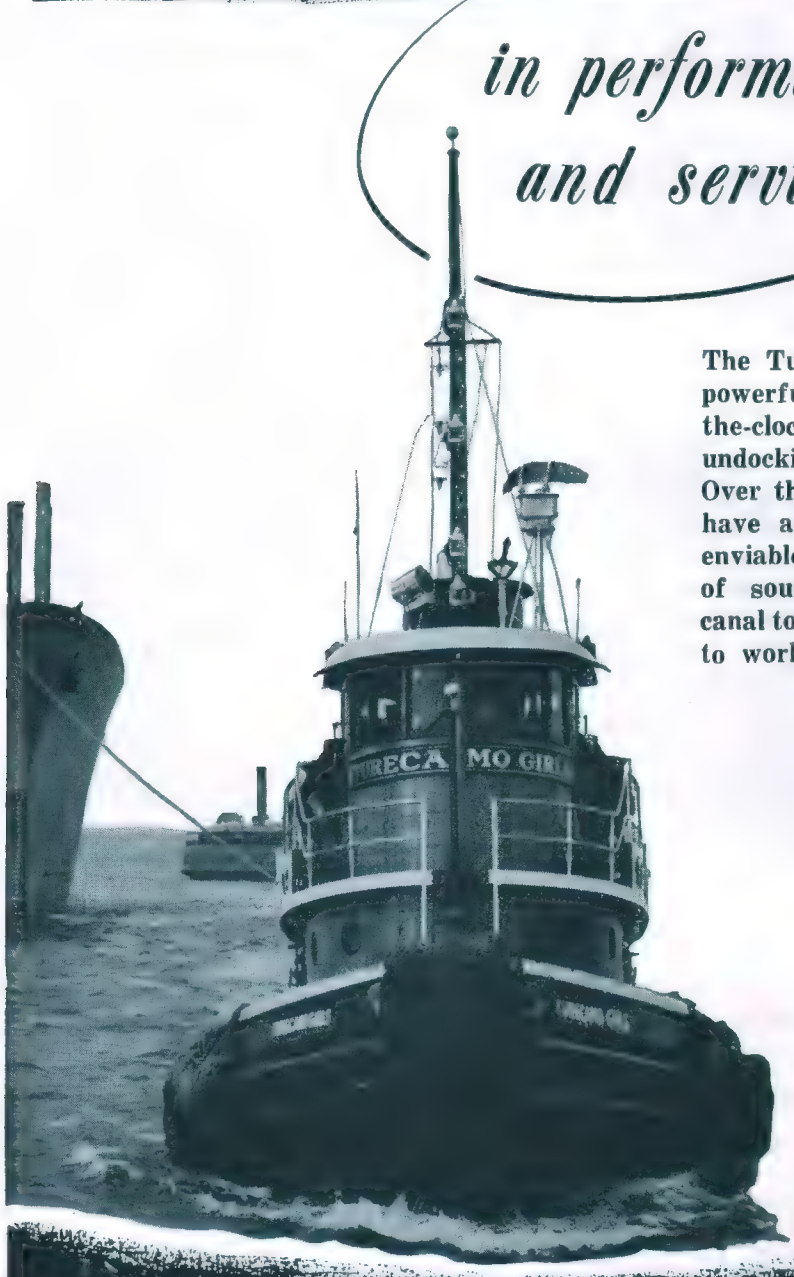
The New York Chamber of Commerce has elected **Lloyd H. Dalzell,** Board Chairman of Dalzell Towing Company, Inc., as Chairman of its Committee on Harbor and Shipping. He succeeds Vice-Admiral **Edward C. Holden, Jr.,** President of the United States Protection and Indemnity Agency, Inc.



AWARD PRESENTATION: Captain **E. L. Lindenmuth,** Senior Skipper of the Atlantic Refining Company fleet, is shown accepting the first place award of the Marine Section of the National Safety Council. Captain **Lindenmuth** accepted the plaque, first place in the Tanker Division, in behalf of all the sea-going members of the Marine Division. This is the second consecutive time first place was won by the Atlantic Refining fleet. Operating Section Superintendent, Captain **C. C. Shute,** left, and Captain **Lindenmuth,** right, hold the awards for 1958 and 1959, just after the formal presentation was made. Looking on are Port Captain **H. M. Elder,** Chief Engineer **Augustus Brown,** Port Engineer **W. A. Walls,** Safety Engineer **C. A. Culver,** and Chief Mate **Durward Knight.**

ALWAYS OUT FRONT

in performance and service



The Turecamo fleet of modern, powerful tugs is available around-the-clock for the docking and undocking of ships of all sizes. Over the years, Turecamo tugs have also established an enviable record in all phases of sound, harbor, coastwise and canal towing. Put this experience to work for you.

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harbor, sound
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You can run up "all's well" and relax – because Sinclair marine fuels and lubricants take mighty good care of an engine. You can rely on Sinclair Marine Products to help keep a ship or a fleet moving – at lowest cost and highest efficiency.

Sinclair constantly seeks to improve marine fuels and lubricants – to keep pace with advances in marine engineering.

It will pay you to find out about Sinclair Diesel Fuels and Sinclair lubricants Rubilene® and Tenol®. Write Sinclair Refining Company, Marine Sales Department, 600 Fifth Avenue, New York 20, N. Y.

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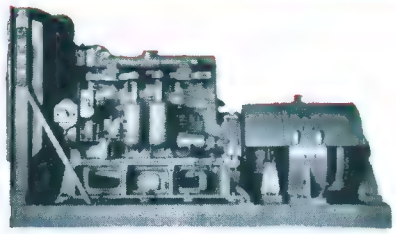
INTERNATIONAL CODE SIGNAL FOR "ALL'S WELL"

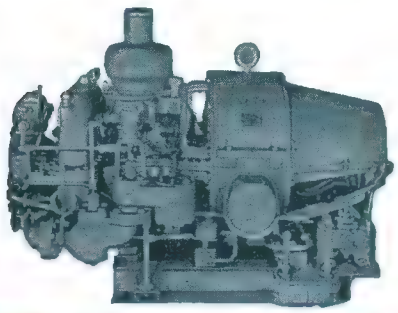
Sinclair **Sinclair**
MARINE LUBRICANTS

GENERATOR SETS



1 **125 KW 120 VOLT D.C. BUDA DIESEL GENERATOR SET**

GENERATOR: Crocker-Wheeler No. 892565—Model 101-H-DP—125 KW—120 Volts DC—1042 amps—type CCD—40° C rise—900 R.P.M. ENGINE: BUDA model 6-DCS-1879—6 cylinder 6⅜" x 8¾"—supercharged—900 RPM.—Cooling—self-contained radiator.

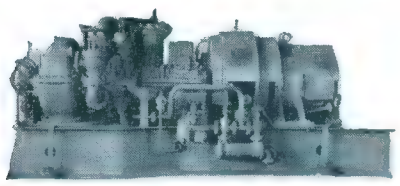


2 **UNUSED 60 KW GEARED TURBO GEN. SETS**

Geared turbo-generators—Westinghouse M-20-EH. TURBINES: 89.4 HP—7283 RPM—200 PSI. GENERATORS: 60 KW—120 volts DC—500 amps.—1800 RPM—type SK—frame 143. Units mounted on pre-fab sub-bases—33½" wide—42" long. Complete with carbon packing and gauges.

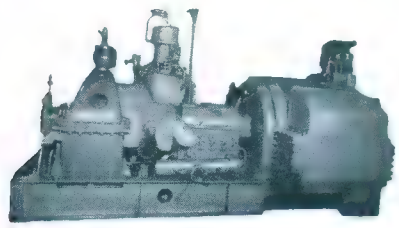
3 **OTHER GENERATOR SETS**

GM 8-268A — 200 KW — 440/3/60 — 1200 RPM, with switch.



4 **UNUSED 200 KW AC TURBINE GENERATOR**

TURBINE: Mfg by Westinghouse—steam press. 540# G—superheat 322° F—exhaust pressure 1# Abs.—9989 RPM. GENERATOR: Mfg by Westinghouse — self-ventilated — drip-proof —open—200 KW—250 KVA—450 volts—321 amps—3 phase 60 cycle—80% PF—1200 RPM—120 exc. volts—28 amps. DC. EXCITER: DC—Westinghouse—type SK—frame 143-6—40 KW—120 volts—333 amps—1200 RPM—2.95 shunt field amps—stab shunt—drip-proof.

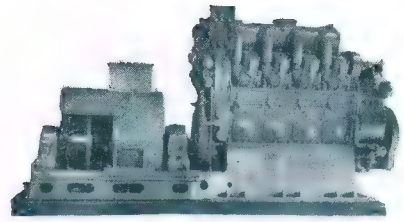


5 **SELF-UNLOADING AC TURBO GENERATOR**

1000 KW — 440/3/60 — mfg by G.E. — 4 units available. TURBINE: 8-stage type FSN — 7964 RPM — WP 375# — 175°F — superheat normal (1 lb PSIG ABS. at turbine exhaust flange) Steam flow lbs/hr 100% load, 12550. GEAR: helical, 7964 to 3600 RPM. GENERATOR: Type ATB 2-pole — 1000 KW — 0.8 PF — 450/3/60 — 1605 amps — direct connected 11 KW 120 VDC exciter. Total weight of complete unit 29,500 lbs. DIMENSIONS: Total length 16' 8⅛" — width overall 5' 7¾" — total height 7' 9" over steam inlet. Steam inlet 3½" — exhaust about 28"x36". Turbine can be operated condensing or non-condensing. IMPORTANT NOTE: For those having only 175 lbs sq in WP, G.E. advises that the unit will produce 900 KW with steam input conditions of 175 lbs/sq in and obtain a steam rate of 16.2 lbs. Typical serial Nos.: Turbine, 39697; Gear, 8874; Generator, 5358205.

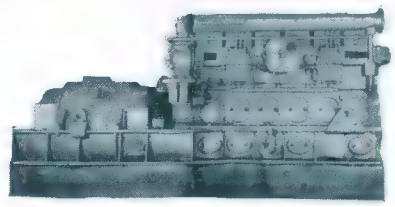
6 **20 KW LIBERTY SHIP GENERATORS**

Liberty Ship 20 KW reciprocating generators—120 volts D. C. Either Troy-Enberg or Whiton. Excellent condition.



7 **5 UNUSED 500 KW 120/240-VOLT DC DIESEL GENERATOR SETS**

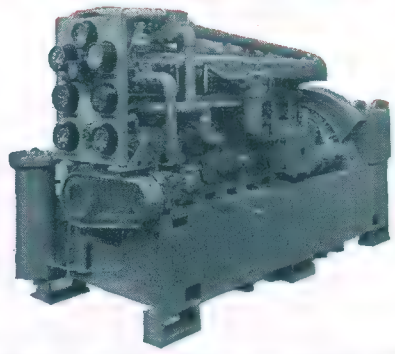
Excellent for marine contractors use on dredges, derricks, etc., or shipboard use for additional ships service power or refrigeration.
ENGINE: GM model 8-278—8 cylinder—720 RPM—715 HP—VEE type—8½ x 10½—air starting—2 cycle.
GENERATOR: Either Allis-Chalmers or Westinghouse. 500 KW—120/240 volts DC—2080 amps—720 RPM—drip-proof marine—class A insulation—compound wound—overload 125% 2 hours. Complete with very generous supply of spare parts; exhaust muffler; heat exchangers; balance coils; oil clarifiers; sylphon valves; circuit breakers & many other parts. 2 sets available with Westinghouse generators; 3 with Allis-Chalmers generators. Your inspection is invited.
WILL SELL ENGINES SEPARATELY FOR PROPULSION.



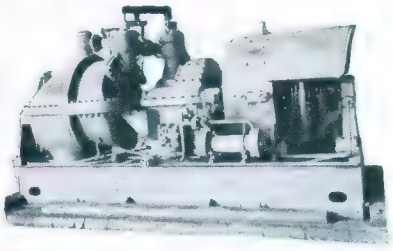
8 **2 UNUSED COOPER-BESSEMER 200 KW DIESEL GENERATOR SETS**

GENERATOR: 200 KW 240 volts DC—720 RPM—stab. shunt—833 amps. Mfg. by GE—drip-proof marine — type CDM1658Y — form AA.
ENGINE: Diesel type FS-6—8¾ x 11—300 HP—liquid cooled—air starting. Units complete with mufflers, rheostats, balance coils, oil clarifiers & spares. These heavy-duty slow-speed units are ideal for low maintenance jobs—excellent for dredges, ships service, etc.

9 **UNUSED SUPERIOR 100 KW 120/240 VOLT D.C. DIESEL GENERATOR SETS IN ORIGINAL FACTORY CRATES**



GBD-8 Superior 4 cycle engines—5½" bore—7" stroke—1200 RPM—displacement 1330.4 cu. inches—152 BHP—heat exchanger cooled. GENERATOR: Mfg. by Delco—100KW—120/240 volts DC 3-wire—1200 RPM—417 amps—stab. shunt wound—self-excited—complete with balance coil. SPECS: Fuel consumption 0.620 lbs. KW hr. Weight of diesel generator set 10,000 lbs. — 124" overall length — 65-11/16" high—42" wide—height necessary to pull piston 67⅝". Complete with muffler, flexible pipe, thermometers, etc. Can also furnish above with radiator.



10 **WESTINGHOUSE 300 KW VICTORY SHIP AUXILIARY TURBO-GENERATOR SETS—UNUSED**

TURBINE: Westinghouse — steam pressure 440 lbs. — 740° TT — exhaust pressure 28½" vacuum — 5930 RPM — instr. book 8360 — Gear RPM 1200 — Pinion RPM 5930. GENERATOR: 300 KW — 120/240 volts DC — 1250 amps — 1200 RPM — Frame CB 208.04 — stab shunt — rise 40° C — 125% load — 2 hrs — 55° C. Buy for replacement or spares.

KNOWN 'ROUND THE WORLD

THE BOSTO

313 E. BALTIMO

Main Office: LExington

11 **UNUSED WESTINGHOUSE 500 KW TURBO-GENERATOR SETS**

500 KW—625 KVA—80% PF—1200 RPM—3 phase—60 cycle—230-volt AC generators & 125-volt DC exciters. The generator may be connected for 450-volt operation. The turbine is designed and tested for operation at 425 PSI @ 725°TT. The unit will carry full load with steam at a pressure of 335 PSI @ 725°TT & 28" vacuum. Turbine speed 9018 RPM. The complete turbo-generator weighs 17,225 lbs. Steam rate 12.11 lbs/KW hr.—overall length 11' 4⅛"—overall width 5' 5 13/16". Units complete with voltage regulators. Built 1954. Excellent for new construction, self-unloaders, conversions, ships service, etc.

12 **200 KW G.E. TURBO GENERATOR SETS**

(4) Unused—200 KW—5-stage type DN—10012 RPM turbine—540 lbs.—675°—driving 200 KW 440/3/60 generator—.8 PF—1200 RPM—with direct connected exciters—with ample spares.

13 **CUMMINS DC & AC HEAT EXCHANGER COOLED DIESEL GENERATOR SETS**

(1) 60 KW—120 volts DC—500 amps—6 cyl engine—electric starting. Engine HED-#36068
(1) 60 KW—440/3/60 AC—6 cyl.—electric starting. Also has 20 KW DC on same shaft. Engine HSGAD #39322.

14 **G.M. DIESEL GENERATOR SETS**

(2) 30 KW—GM 3-71—120 volts DC—heat exchanger cooled.
60 KW—GM 6-71—120 volts DC—heat exchanger cooled.

15 **230 KW D.C. COOPER-BESSEMER DIESEL GENERATOR SETS**

Cooper-Bessemer engines type GN-6—400 HP — 6 cylinder — 10½" x 13½" — 500 RPM. G.E. generators—230 KW—230 volts—959 amps—type MPC-6. Form AL—marine type—ball-bearing drip-proof. Complete with switch gear. These units are very modern—built 1943—have had very little use and are in practically new condition.

DIESEL ENGINES

16 **(4) GM 8-268A 500 HP DIESEL ENGINES**

500 HP—8 cyl.—2 cycle—1200 RPM diesel propulsion engines—complete with 2.538:1 Snow-Nabstedt reduction gears. 500 RPM propeller shaft speed. Can furnish shafts, propellers, coolers, air compressors and pumps for this rig. Pilot house controls, propellers & shafts.

17 **(2) 1050 H.P. 300 RPM FAIRBANKS-MORSE 6 CYL. DIESEL ENGINES**

Heavy-duty Fairbanks-Morse direct reversible diesels, model 37E-16—16 x 20 1050 HP at 300 RPM. In excellent condition—still aboard vessel. Complete with heat exchanger attached and detachable pumps. Complete installation. Can be seen now aboard S.S. Culpeper.

18 **MATCHED PAIR GM 12-278A DIESEL ENGINES**

1200 HP @ 720 RPM—with Fawick reversing clutch. Will sell with or without clutch. Engines still in P.C.E. 904—with all coolers and accessories. In practically new condition.

ON METALS CO.

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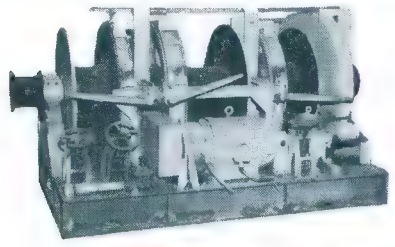
ön 9-1900 • Marine Dept.: ELgin 5-5050

WINCHES AND WINDLASSES

19

2 EXCELLENT LSM STERN ANCR. WINCHES

2 excellent LSM stern anchor winches with cone-drive speed reducer and 60 HP slip ring constant torque TEFC 3-phase, 60-cycle, 440-volt, AC motor and reversing drum magnetic controllers.



20

LARGE 3-DRUM WINCH

Formerly used AM minesweeping. Suitable for marine railways, mooring, offshore rigs, etc. 3 drums & 2 gypsies on single shaft—each drum has positive jaw clutch & mechanical hand brake providing individual action for each drum. Gypsies may operate independently of main drums. Center drum has pawl for holding this winch — has rope pull of 12,000 lbs center drum & 6,000 lbs on outboard drums. Loads can be increased by modifications. Power: 40 HP 440/3/60, with all controls. Base dimensions: 7' 2" deep—11' 7" wide.

2 LARGE CAPACITY AC MOORING OR TOWING WINCHES

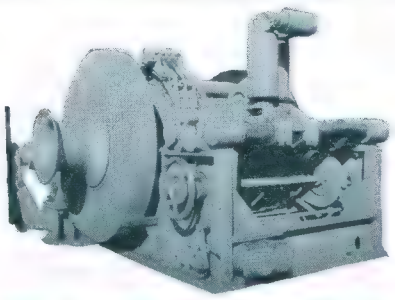
21

Wire capacity—3000' of 1⅛" wire rope—nominal pull 20,000 lbs.—maximum 90,000 lbs.—average rope speed 50 F.P.M.—with cable guide—for windup and unwinding operations—drum handles more than 6 wraps of cable. MOTOR: Crocker-Wheeler 40 HP — 440/3/60 — 860 RPM—wound rotor—continuous—fan cooled—salt and moisture resistant—frame ARSFC-M-505—with all controls. DIMENSIONS: 8' 8" overall width—8' 2" deep.

22

UNUSED STEAM WINDLASS FOR 2¾" CHAIN

Will handle 2 20,000 lb. anchors & 35 fathoms of chain at 30 F.P.M. Bore & stroke 12" x 12" —7' 10½" center to center wildcats. Units excellent for T-2 Tankers, Jumbo & Super Jumbo.



23

NEW LST STERN ANCHOR WINCHES

100,000 lb. line pull—suitable for use with 50 HP 230-volt DC motors—or suitable for use with 6-71 diesel engines and torque converters. Suitable as towing winches on tug boats, mooring winches on barges, dredges and general marine contractors floating equipment, haul-out ways.

230-VOLT DC 60 HP WINDLASS

24

Horizontal double wildcat—2⅛" chain—C2 type—excellent—with all controls.

MISCELLANEOUS

MAIN CIRCULATING VERTICAL PUMPS
ALL 230 VOLTS DC
VICTORY SHIP & C-2

25

18 LAS—8435 GPM—40/60 HP.
2½UZ-1—120 GPM—208 ft. hd.—10/15 HP.
8LS-1—1121 GPM—24.6 ft. hd.—5/10 HP.
1½UZ-3—20 GPM—208 ft. hd.—5 HP.
3-UBS-1—400 GPM—208 ft. hd.—30/50 HP.
5-LS-1—415 GPM—78.5 ft. hd.—15/20 HP.

FLUSH CLEAN SEWAGE EJECTOR PUMPS

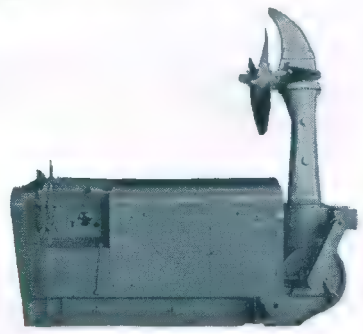
26

Mfg by Chicago Pump Co.—Louis Allis motor-type OX—class D—form A—code G—7½ HP —220/440/3/60—1750 RPM—19/9.8 amps —40°C rise. Pump: vertical 150 GPM—30' head — 4 x 4 — complete with all valves and necessary fittings.

27

WORTHINGTON ROTARY GEAR PUMPS

4 - GRVS—250 GPM—47 # hd.—650 RPM—15 HP.
5 - GRVS—225 GPM—55 # hd.—308 RPM 15 HP.
2 - GRVS—12 GPM—400 # hd.—460 RPM—7½ HP.



28

DIESEL PROPELLING UNITS

(1) Model O-2D Murray & Tregurtha propelling units, driven by GM 6-71 diesels. Units have 3-blade 48" propellers, 24" pitch. Net wt. 9,300 lbs.—360° steering. Completely rebuilt & guaranteed. Excellent for barge propulsion.

29

(10) SPERRY #2 STEERING GEAR

Sperry #2 steering gears—with 5 HP 115-volt DC controls and automatic pilot.

30

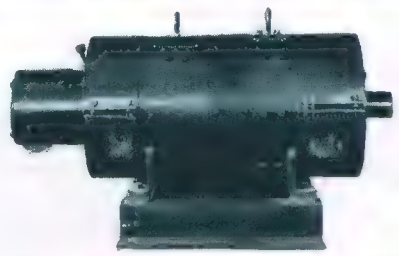
1800 HP REDUCTION GEAR FOR 16-278A AND F.M. OP DIESELS

(10) reduction gears—1800 HP—mfg by Farrell-Birmingham—2.409 to 1—with American Blower hydraulic couplings—one pinion—single reduction—double helical type.

31

NEW G.E. MAIN PROPULSION ROTOR

This is for Mission Class T2-SE-A2 or P2-SE2-R1 vessels. Unused and in excellent condition.



32

NEW 4 KVA MOTOR GENERATOR SETS

MOTOR: Hertner Electric Co.—5.5 HP—115 VDC—45 amps—1800 RPM. GENERATOR: 2½ KW—4KVA—115 volts—single phase—35 amps—1800 RPM. (This is a 2-bearing ball-bearing unit, with speed regulator.)

33

NEW 2.5 KW MOTOR GENERATOR SETS

Mfg by Hertner—4-bearing ball-bearing. Input: 5 HP—230 volts DC—1800 RPM—23 amps. Output: 2.5 KW—115 volts single phase AC.

34

DIESEL STARTING AIR COMPRESSOR

233 CFM @ 600 lbs. @ 850 RPM—Gardner-Denver model WRY—5½ x 2 ⅞ x 5—driven by Cat. diesel D-7700—125 HP.—6 cyl.—5¼" x 8" bore & stroke.

35

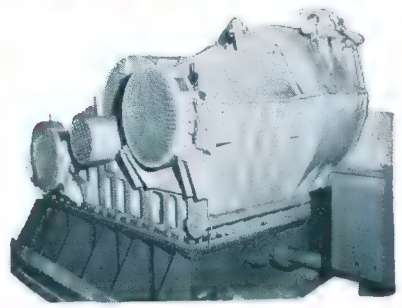
SOLO SHELL 12000 GAL. EVAPORATOR

12,000 gal. double effect in a single shell Solo Shell unit. With all pumps & accessories. 230 volts DC.

36

AUXILIARY HEATING BOILER 5000#/HR. @ 100 LBS.

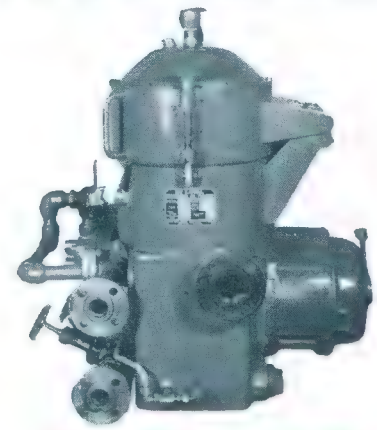
Mfg. by Foster-Wheeler—type D—two sections. 150# Design pressure—W.P. 100#—evaporation 5000#/hr.—feed water temp. 160°F. Dimensions of the 2 D type sections together: Approx 11' 5" high—14' wide—depth over drums 8'. Built to ASME. Suitable for diesel vessels and other auxiliary heating services.



37

NEW 1.81:1 3200 HP REDUCTION GEAR

Farrel-Birmingham reduction gear — 3200 HP — twin input — capable of handling (2) 1600 HP engines at 720 RPM input with a single output of 3200 HP at 402 RPM. Unit equipped with hydraulic coupling mfg by American Blower — size K-117R — Fawick clutch and remote controls. Gear 20° horizontally offset — 2 pinion — single reduction. Suitable for small cargo vessels, dredge pump drive, etc.



38

CENTRIFUGAL OIL PURIFIERS

(5) New DeLaval Unimatic Purifiers—Model 55N-13—1½ HP—440/3/60.
(1) New DeLaval Model 65N-13—1½ HP—440/3/60.
(2) Sharples—100 GPH—model 13NV2P—stainless steel bowl—17,000 RPM max bowl speed. Motor 1½ HP—230 volts DC—3450 RPM. NEW—UNUSED.
(5) Sharples—225 GPH—17,000 RPM bowl speed—stainless steel bowl—Motor: 1½ HP 440/3/60—3450 RPM—complete with magnetic controller. NEW—UNUSED.

39

5" FORGED STEEL SHAFTING—UNUSED

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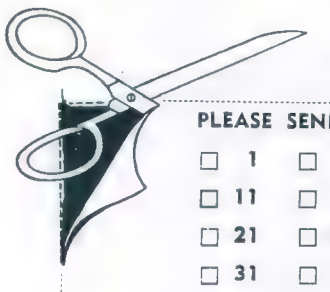

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New Type Combination Chemical And Oil Barge Built For Sinclair Refining

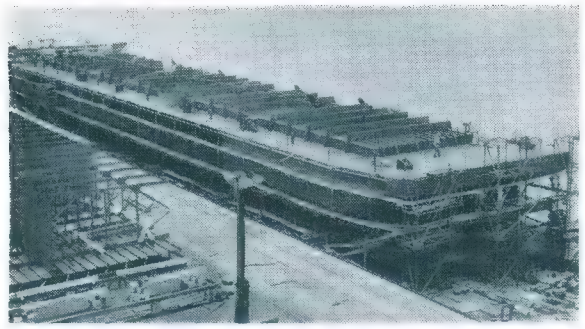
A new kind of combination barge, capable of simultaneously carrying petrochemicals and finished petroleum products, was christened recently in Decatur, Ala.

The barge, built for Sinclair Refining Company, a wholly owned subsidiary of Sinclair Oil Corporation, was christened "Sinclair Petro-Chem No. 1."

Sponsoring the barge was **Mrs. W. D. Garwood,** wife of E. I. du Pont de Nemours & Company's Director of Manufacturing, Explosive Department, Wilmington, Del.

This barge, the first of its type, was built by the Ingalls Shipbuilding Corporation of Birmingham, Ala., at its Decatur shipyard.

The barge's primary function will be to transport xylenes from Sinclair Refining Company's Houston, Tex., refinery to E. I. du Pont de Nemours & Company's chemical plant at Old Hickory, Tenn. The xylenes produced in special manufacturing facilities will be used at the du Pont plant for an intermediate in the process for "Dacron" polyester fiber. As



"Sinclair Petro-Chem No. 1" will simultaneously carry petro-chemicals and such familiar oil products as heating oil, kerosene and gasoline.

the barge moves the petrochemicals from Houston to Old Hickory, it will aso be able to discharge such familiar petroleum products as heating oil, kerosene and gasoline along its route.

The new river barge is capable of hauling 546,000 gallons of chemicals, plus 504,000 gallons of conventional petroleum products. It is 250 feet long, 50 feet wide and 12 and a half feet in depth.

Designed by Sinclair Refining Company, it is of all-welded steel construction. The centerline tanks which carry the petrochemicals are completely isolated from the hull but form an integral part of the vessel's structure. The wing compartments, which will carry the familiar petroleum products, are separated by a centerline bulkhead dividing these wing and double bottom compartments into five port and five starboard tanks. The chemical centerline tanks and the wing petroleum tank each have their own piping and pumping system.

All gasket and packing material used in the pumps, pipe lines, hatch coamings, etc., handling the petrochemicals is "Teflon" fluorocarbon resin, or "Teflon" impregnated. "Teflon" was especially developed by the du Pont Company for the handling of various chemicals.

The barge is built to the highest classification of the American Bureau of Shipping and the United States Coast Guard for service on lakes, bays, rivers and sounds.

Marine Engineering Group Honors Lord Simon

The Eastern USA Section of The Institute of Marine Engineers gave a luncheon last month at the Whitehall Club, New York City, in honor of The Right Honorable **The Viscount Simon, C.M.G.,** Chairman of the Port of London Authority and President of The Institute of Marine Engineers, who was in New York for the British Exhibition.

Lord Simon informed those present that the Shipbuilding Conference, London, sponsors of the Shipbuilding Exhibit at the British Exhibition, designated June 15th as "Shipbuilding Day" and invited members of the Society of Naval Architects and Marine Engineers and the Institute of Marine Engineers to visit the Exhibition as their guests.

Captain **W. N. Landers,** Secretary, SNAME, and **John H. Thomas,** Institute of Marine Engineers, Section Chairman and host of the luncheon, accepted the Shipbuilding Conference's invitation on behalf of the members of their organizations.

Front row—from left to right: **Phillip F. Gresser,** Honorary Treasurer and Project Engineer, J. J. Henry Company, Inc.; **John H. Thomas,** Chairman Eastern U.S.A. Section and Manager, Marine Division, The Perolin Company, Inc.; **Lord Simon,** President of the Institute of Marine Engineers and Chairman of The Port of London Authority; **T. W. D. Abell,** Chairman Scottish Section and Managing Director, David Rowan & Company Ltd.; **Clifford N. Thomas,** Honorary Secretary and Engineering Surveyor, Lloyd's Register of Shipping; Back row—from left to right: **Philip C. Speer,** Bethlehem Steel Company; **William H. Low,** Chief Surveyor Operations, American Bureau of Shipping; **Eugene D. Storey,** Caltex Service Company; Captain **Wilbur N. Landers,** Secretary, SNAME; **George H. Hodges,** Manager, Marine Department, The Babcock and Wilcox Company. Committee members not included in the photograph are **Peder A. Birkland,** Superintendent Engineer, Naess Shipping Company; **Hieronim Knap,** Superintendent Engineer, Transamerican Steamship Corporation; Dr. **John J. McMullen,** Naval Architect. **Arthur R. Gatewood,** Vice-President-Engineering American Bureau of Shipping, is New York Vice-President of the Institute of Marine Engineers.

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GM Diesels drive Waterous pumps on 17 bunkering barges in Esso's fleet—they average 6,000 to 8,000 hours between overhauls—require minimum periodic maintenance. For added safety—and to eliminate hazards that can be caused by electrical starting systems when volatile fumes are present—some of these GM Diesels are equipped with Hydrostarters, the GM-developed hydraulic starting system.

Esso checked the price, checked the service, checked parts availability before they picked these Diesels—chose "Jimmy" Diesels for this application because they scored on every count.

Why don't you take a leaf from the book of leading operators—compare engines before you buy? Your GM Diesel distributor will help you—he's in the Yellow Pages under "Engines, Diesel"—or write direct for more information.

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Webb Institute Holds Commencement

Edward L. Teale, Jr., President of the New York Shipbuilding Corporation, Camden, N.J., builders of the first nuclear powered passenger and cargo ship, made the principal address to the graduates at the recent 64th annual commencement of Webb Institute of Naval Architecture, Glen Cove, Long Island, N.Y.

Diplomas and degrees were awarded by **Walter L. Green,** President of the Board of Trustees, and, until his retirement, President and Chairman of the Board of the American Bureau of Shipping. He also delivered the address of welcome. The Commencement exercises were presided over by Rear Admiral **Frederick E. Haeberle,** USN (ret.), Administrator and Trustee of Webb Institute. Reverend **Clifford G. Meyer,** Pastor of St. Paul's Lutheran Church in Northport, Long Island, and father of one of the graduating seniors, pronounced the invocation and benediction.

Prizes for honor students were presented by **Mrs. J. Lewis Luckenbach,** Trustee, and **Joseph A. McDonald,** Trustee and Chairman of the Education Committee.

There were 15 young men who received their Bachelor of Science degrees and three naval officers who received their Master of Science degrees. **Robert K. Richardson** and Lieutenant **Howard R. Canter,** USN, represented the graduating classes in expressing appreciation and saying farewell.

The 15 young men who received their B.S. degrees were: **Roderick A. Barr, William L. Brinck, Thomas B. Cole, Kenneth E. Court, William A. Freese, Endel Mann, John A. Mercier, Clifford P. Meyer, Gail L. Owen, Robert K. Richardson, William B. Terney, Peter Van Dyke, Kenneth W. Walker, Joseph Wren** and **Don B. Young.**

The three naval officers who received their M.S. degrees were: Lt. **Robert D. Biederman,** Lt. **Howard R. Canter** and Lt. **Vito R. Milano.**

The prizes were distributed as follows: LUCKENBACH MEMORIAL PRIZE for highest average in professional subjects: **John A. Mercier,** Oak Lawn, Ill.; CHAFFEE MEMORIAL PRIZE for general excellence: **John A. Mercier,** Oak Lawn, Ill.; AMERICAN BUREAU OF SHIPPING PRIZE for highest average scholarship in all subjects: **William B. Terney,** Mineola, N.Y.; SAMUEL D. McCOMB MEMORIAL PRIZE for second highest average scholarship: **Peter Van Dyke,** Chicago, Ill.; STEVENSON TAYLOR MEMORIAL PRIZE for best marine engineering thesis: **Gail L. Owen,** Missoula, Mont.; LEWIS NIXON MEMORIAL PRIZE for best naval architecture thesis: **John A. Mercier** and **Robert K. Richardson,** Baldwinsville, N.Y.; WILLIAM RUXTON MEMORIAL PRIZE for the greatest and most consistent scholastic improvement during the four years: **Clifford P. Meyer,** Northport, N.Y.; PI SIGMA PHI KEYS sponsored by the Propeller Club of the United States, for maintaining an average of 87.5 per cent or better in all professional subjects: **Roderick A. Barr,** North Plainfield, N.J.; **William L. Brinck,** Helena, Mont.; **Endel Mann,** Yonkers, N.Y.; **John A. Mercier,** Oak Lawn, Ill.; **William B. Terney,** Mineola, N.Y., and **Peter Van Dyke,** Chicago, Ill.

Webb Institute is the only college of its type in the United States. Fully accredited and devoted exclusively to naval architecture and marine engineering, it was founded in 1889 by **William H. Webb,** a prominent New York clipper ship designer, builder and operator. The Institute moved in 1947 from its original location in the Bronx, N.Y., to the present 26-acre site in Glen Cove, Long Island, N.Y., formerly the Herbert L. Pratt estate, where new modern buildings and facilities, including a ship model testing tank, complete laboratory and shop facilities, and a gymnasium have been added.

Among the honored guests invited to the ceremonies were: Vice-Admiral **Charles Wellborn,** USN, Commandant of the Eastern Sea Frontier and the Third Naval District; Rear Admiral **Schuyler N. Pyne,** USN, Commander of the New York Naval Shipyard; Rear Admiral **T. P. Wynkoop,** USN (Ret.), Vice-President of Radio Corporation of America; **William Francis Gibbs** and Rear Admiral **L. A. Kniskern,** USN (Ret.), President and Vice-President respectively, of Gibbs and Cox, designers of the SS United States; Rear Admiral **Gordon McLintock,** USMS, Superintendent of the U.S. Merchant Marine Academy at Kings Point, Long Island, and **Henry C. Parke,** National President of the Propeller Club of the United States.

Hi-Press Appoints Podell Chief Engineer

Hi-Press Air Conditioning of America, Inc., New York, has announced the appointment of **Jerome Podell** as Chief Engineer. Mr. **Podell** participated in the design and installation of air conditioning and refrigeration systems on such vessels as Mooremack's Argentina and Brasil, AEL's Atlantic, and the French Line's transatlantic superliner, France. He has handled numerous land-based projects, including major developments for the U.S. Air Force and the U.S. Army Corps of Engineers.

A graduate of the College of the City of New York with a degree in mechanical engineering, Mr. **Podell** is a member of the American Society of Heating, Refrigeration and Air Conditioning Engineers.

American Marine Corp. To Build Three Barges

American Marine Corporation, New Orleans, will build a 115-foot by 30-foot by seven-foot oil barge for Delta Mid-Stream Fueling Service, New Orleans. The same yard will construct two deck cargo barges, measuring 121 feet by 44 feet by eight feet for undisclosed interests.

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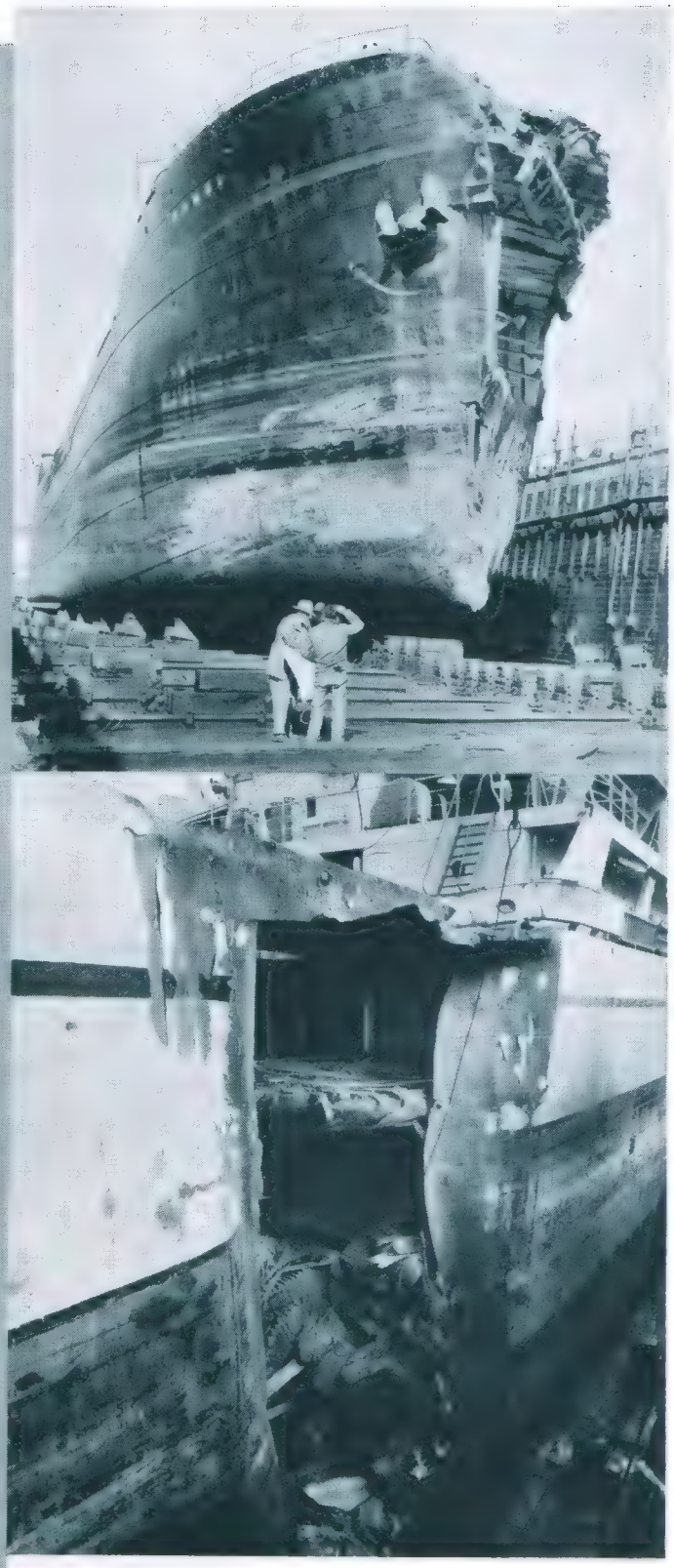
We like to think of Sun Ship as a "can do" organization—ready, willing and able to tackle the toughest construction and repair jobs. Rebuilding damaged ships, like the ones seen here, is strictly routine for our skilled force. Our modern dockside plant is completely equipped with facilities for building and repair, or for the manufacture of special machinery and industrial equipment.

When you have a job that requires heavy engineering skill and experience, remember . . . Sun Ship can do!



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Much More Can Be Done To

Improve Ship Designs For Rough Seas

The Third Summer Seminar At Stevens Institute Hears Reports On Latest Studies And Lists Some Research Projects Still Needed.

The **Third Summer Seminar** on ship behavior at sea, sponsored by the Office of Naval Research and Stevens Institute of Technology, was held from June 13 through June 17 at the Davidson Laboratory of Stevens Institute, Hoboken, N. J. These seminars are arranged for the dissemination of research results obtained at the Davidson Laboratory and elsewhere.

The object of the seminar is to survey the subject of ship behavior at sea, with emphasis on new developments since the seminar in 1958. The morning sessions were given over to important topics at which both a guest lecturer and a staff member of Stevens Institute spoke and followed by a discussion period. In the afternoon there was a series of daily lectures on ship motion theory, with particular attention given to recent developments and to applications to the hull bending moment problem. The latter part of each afternoon was devoted to model tank and moving picture demonstrations.

Approximately 50 scientists and engineers from several countries including Yugoslavia, Belgium, Norway, England and the United States attended this seminar.

The subjects covered were:

Ocean Wave Measurement by **W. Marks,** Stevens Institute of Technology.

Hydrofoil Craft in Waves by **T. F. Ogilvie,** David Taylor Model Basin.

Ships in Oblique Seas by **B. V. Korvin-Kroukovsky,** consultant at Stevens Institute.

Model Motions and Bending Moments by **E. Numata,** Stevens Institute.

Semi-Submerged Ships by **P. Mandel,** Massachusetts Institute of Technology.

Research at Stevens by **E. V. Lewis** and **P. Van Mater,** Stevens Institute.

New Theoretical Developments by **P. Kaplan,** Technical Research Group, Syosset, N.Y.

Analysis of Irregular Wave Tests by **J. Dalzell,** Stevens Institute.

Review of Ship Motion Theory for Regular Waves by **B. V. Korvin-Kroukovsky,** consultant at Stevens Institute.

Routine Motion and Moment Calculations by **J. Dalzell** and **W. R. Jacobs,** Stevens Institute.

Review of Ship Motion Theory for Irregular Waves by **E. V. Lewis,** Stevens Institute.

One morning session was a panel discussion covering the Objectives of Research on Ship Behavior at Sea. The panel members were: **W. E. Cummins,** Head of Seaworthiness Branch, David Taylor Model Basin; **J. J. Henry,** President of J. J. Henry Company, Inc.; **J. L. Mills,** Supervising Naval Architect, Preliminary Design Branch, Bureau of Ships, and **B. V. Korvin-Kroukovsky,** Research Professor (ret.), Stevens Institute, Consultant in Hydrodynamics.

Panel discussion on whether or not more research is needed. Left to right: James L. Mills, Jr., William E. Cummins, B. V. Korvin-Kroukovsky, James J. Henry and Edward V. Lewis, Chairman.

"The reduction of ship motions at sea is a desirable goal for both merchant and naval vessels", stated Prof. **E. V. Lewis.** Continuing, Professor **Lewis** stated that usually the velocities and accelerations associated with motions in waves are particularly objectionable, and, for a given frequency of encounter, the maximum values of the velocity and acceleration components are directly proportional to the amplitudes of roll, pitch, heave, etc. Thus, motions may have a serious effect on the functioning of machinery, instruments, and gun-control devices. Furthermore, accelerations are believed to be primarily responsible for seasickness and frequently cause shipboard accidents to personnel. The reduction of motions, consequently, can be expected to improve the functioning of any ship.

The subject of ship motions at sea cannot be considered separately, however, from course and speed, as motions invariably can be reduced by changing course or reducing speed. Since most ships at sea are usually trying to get somewhere as quickly as possible, either of these two steps are undesirable. Hence, the greatest value of any measures for reducing ship motion may lie in attaining higher speed or more direct course in storm seas. Within the same upper limit of accelerations for safe and efficient ship operation, a vessel with better motion characteristics can either maintain higher speed or a more desirable course than another vessel in the same storm area.

Other more indirect effects of ship motion on speed and performance in waves also should be considered. For example, in the case of a fully loaded cargo ship, shipping of water in head seas is a more serious threat to its safety and speed than motions or accelerations. Hence, an increase in freeboard or perhaps a modification in the forward flare may improve

(Continued on page 34)

Participants in Ship Behavior At Sea Seminar watch test of cargo ship as it is run down 150-foot Davidson Laboratory tank at Stevens Institute of Technology.

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Stevens Seminar

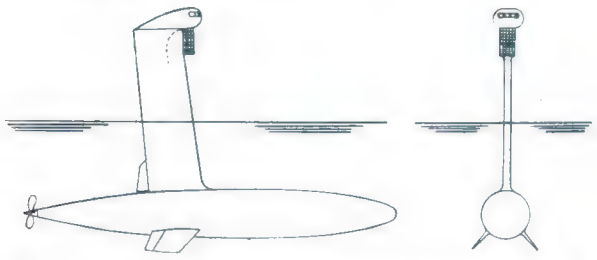

Fig. 1—High-speed schnorkel-type submarine tested at Stevens.

(Continued from page 32)

performance without making any change in the amplitudes of motion. Alternatively, a ship can be designed to cope with large quantities of water over the bow. This involves a clean foredeck, an effective breakwater for deflecting water overside, additional strength in the underdeck structure, and—in the case of cargo ships—strong watertight steel hatch covers forward. Such a ship could operate safely with more severe motions than a conventional ship.

In other cases, particularly when ships are not fully loaded, the critical factor in sea behavior may be slamming. It is significant that a comparatively fine ship with well-rounded bottom sections forward may slam less than another which actually pitches more violently. The former ship, consequently, may be able to maintain higher speeds than the latter in the same rough sea.

Nevertheless, in the cases discussed above, a reduction in amplitudes of motions would improve conditions by reducing both shipping of water and slamming, thus permitting higher speeds. The reduction of ship motions is, therefore, for many reasons an important goal for both commercial and naval vessels. Except perhaps for small hydrofoil craft which can rise clear of the surface waves and submarines which can go below them, research has not yet revealed any panacea by which ships can be made to go at high speeds in rough seas without objectionable motions of some kind.

Professor **Lewis** served as Chairman of the panel discussion and introduced the subject, as outlined in his foregoing statement, by offering a proposition for discussion: The basic problems of ship behavior at sea have been essentially solved. He suggested that perhaps recent advances in experimental model techniques and ship motion theory already provide the most essential tools for evaluating new designs and indicating the direction for improving ship behavior at sea.

The Panel disagreed with this thesis. Dr. **W. E. Cummins** felt that although ship motion theory has made rapid progress in recent years, it is still inadequate for answering the specific questions of designers. Hence, he stressed the need for more basic theoretical work on pitching and heaving motions, particularly to obtain more accurate coefficients in the equations of motion, more rigorous treatment of three-dimensional effects, and more thorough investigation of behavior in oblique seas.

Professor **B. V. Korvin-Kroukovsky** emphasized the need for basic advances in the theory of lateral motions of ships in order to obtain better automatic steering and control of rolling in rough seas. This involves the theoretical treatment of the coupling effects among roll, pitch and yaw.

The other panelists stressed the need for solutions to some of the practical problems of designers. **J. J. Henry** felt that modern cargo ships lose too much time in rough weather at sea. Designers need more guidance regarding practicable means of reducing motions.

J. L. Mills pointed out that the problem of the naval designer may be more specific than simply reducing motions. For example, in the design of an aircraft carrier the most important feature is to minimize the motion of the after end of the flight deck where airplanes land. He would like to have research people investigate this problem. Another similar question might be to maintain a sonar dome at near-constant submergence, rather than simply to reduce the amplitudes of motions. Mr. **Mills** also was interested in unusual types of ship hulls which would be capable of much higher rough water speeds.

It was concluded that a great deal of work still remains to be done on the study of ship behavior at sea, both in the direction of basic theoretical work and in attempting to apply currently available theoretical and experimental techniques to solving specific problems of ship designers.

The sessions concerned with unusual ship hulls developed a great deal of interest. There is the possibility that radically different ship

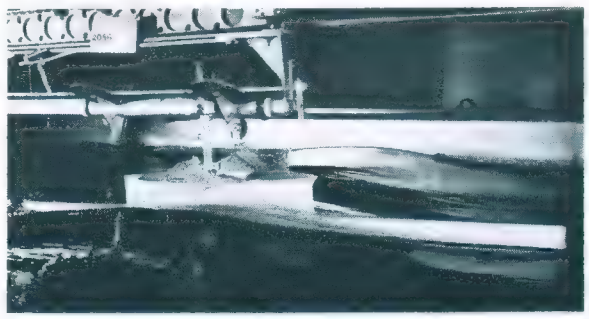

Fig. 2—Unusual type craft under test at Stevens cuts through waves with very little pitching motion while running at high speed.

types might be capable of higher speeds than conventional ships in both smooth and rough water. Ordinary ships require large expenditures of power as speed is increased beyond 30 knots for a superliner or 40 knots for a destroyer. This price of power is exacted by the creation of trains of waves trailing astern, representing a waste of energy that increases rapidly as speed is increased. Furthermore, in rough storm seas, destroyers and even superliners experience such severe motions that speed must often be drastically reduced.

E. Frankel of Massachusetts Institute of Technology described a type of unusual craft which attempts to overcome some of these handicaps. It would actually be more like a submarine than a surface ship, with the main hull normally operating a short distance below the surface of the water, and a fin or strut projecting through the water. This strut would provide air for the power plant and for ventilation, and a small navigating bridge could be located at its top well above the sea. Mr. **Frankel** reported a reduction in wave-making resistance in calm water and noticeably reduced motions when running at high speed through waves in the MIT model tank. A similar type craft is being investigated at the Davidson Laboratory, Figure 1. Another semi-submerged model is shown in Figure 2.

P. Van Mater of Stevens Institute described results of model tests of a slender hull form with a large torpedo-like appendage below the keel at the bow and another at the stern, Figure 3. Locations which would give a minimum resistance in calm water were first determined for the bulbs. For the optimum location the resistance was appreciably less at speeds over 30 knots than for a destroyer of the same displacement. In waves the model showed remarkably little pitching motions at high speed, but a moderate amount of heaving. Films were shown of these models in action which provided a vivid picture of the remarkable behavior of these models in waves.

A series of tests were conducted recently at Stevens on a destroyer model involving the principle of a semi-submerged hull. The objective was to obtain as fine a load waterline as possible at the ends of the model. The waterline amidships was filled out to full beam to assist in obtaining adequate transverse stability. This also permitted a faired midship superstructure to be fitted on the model. Resistance tests on this semi-submerged hull in smooth water at normal draft showed that its performance was almost as good as that of the conventional destroyer. However, it was much inferior at deep draft. Curves of the predicted effective horsepower for the two models in waves show that the normal destroyer has a clear advantage over the semi-submerged hull. However, as a result of observations of the model tests, it is thought that a fair amount of the additional resistance of the semi-submerged ship can be attributed to the waves impinging upon the midship superstructure. In view of this, there are two possibilities for reducing the wave resistance drastically. The superstructure can be either tapered into a sharp point and made narrower or raised up above the waves on columns or struts.

The broad scope of this seminar—ranging from practical and theoretical discussions to actual viewing of model tests—was reported as being very successful by those attending.

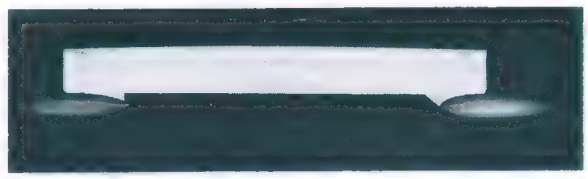

Fig. 3—Another hull tested by Stevens has large torpedo-like appendages to reduce motions.

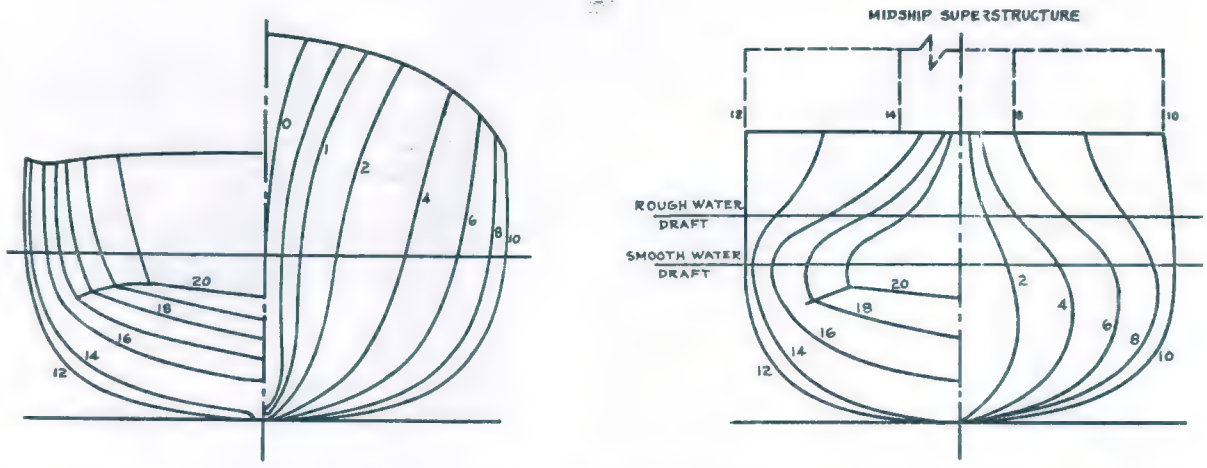

Fig. 4—Body plan of conventional destroyer (left) and semi-submerged type hull tested during studies of ship motions.

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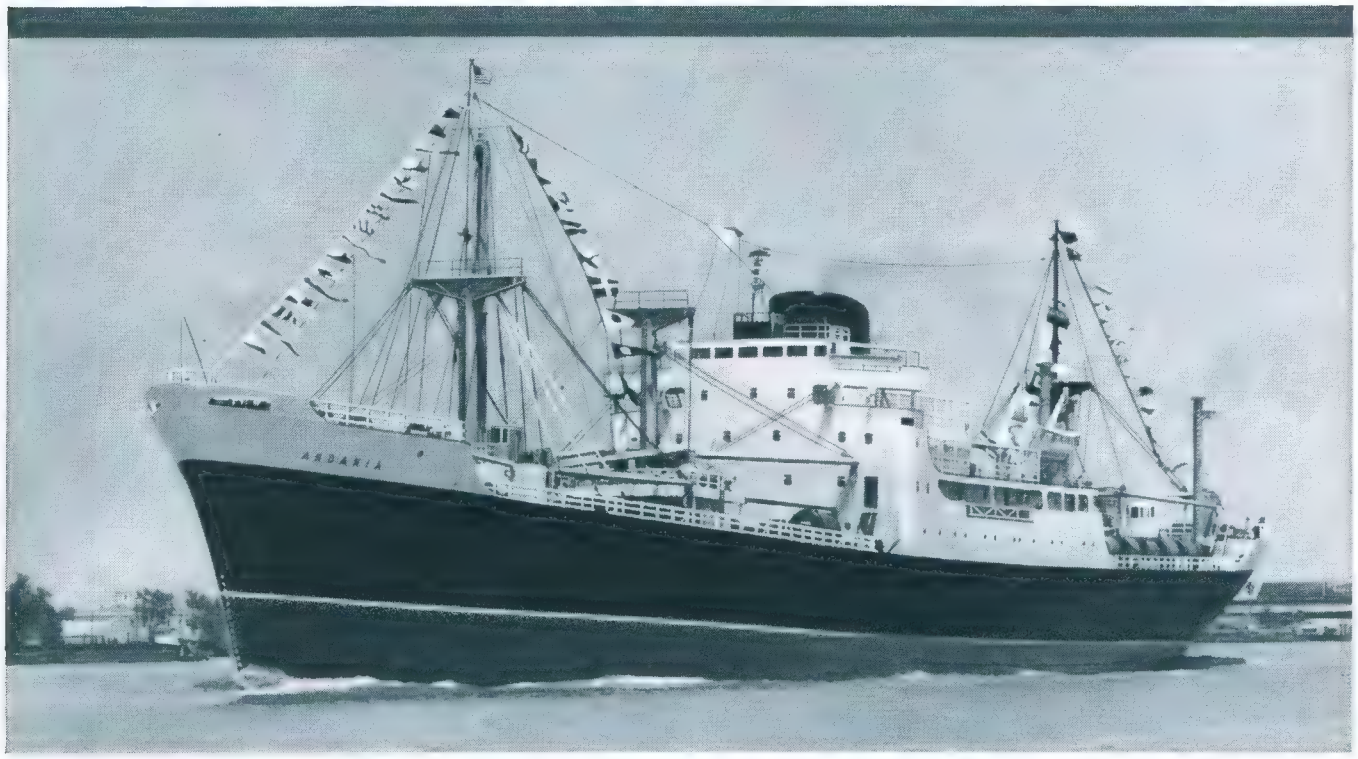

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S.S. ANDANIA initiates the latest development in Cunard's expansion of United Kingdom-Gulf Ports freight service.

THE sleek 17-knot cargo liner begins the new service between Glasgow, Liverpool and the Gulf of Mexico.

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THE ANDANIA can depend on Esso's fast, efficient bunkering service and consistently high-quality fuel and lubricants to log a long record of illustrious service in the growing Cunard fleet.

S.S. ANDANIA sailed on her maiden voyage from Glasgow, May 3, and Liverpool, May 11, to begin cargo service between these ports and the Gulf of Mexico.

THE ANDANIA is fitted to carry grain. She also has 4 tanks with a total capacity of 475 tons for edible oil and other bulk liquids. Her total cargo deadweight is 7,500 tons, and her cargo capacity of 550,000 cubic feet includes 25,000 cubic feet of refrigerated space. The ANDANIA brings a bold new look to the Cunard cargo fleet.

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All-Aluminum Barge To Be Built To Carry Sensitive Cargoes

Neil W. Zundel, Director, transportation sales markets for Reynolds Metals Company, Richmond, Va., has announced that an all-aluminum barge will be built for Industrial Marine Service, Memphis, Tenn., to carry cargoes susceptible to contamination.

The light metal was chosen because of its non-corrosive properties which protect sensitive liquid cargoes from rust contamination—always a danger when using conventional barges.

Upon completion this fall the barge will begin a regular monthly run between Houston and Pittsburgh using the Mississippi-Ohio river system.

It will carry perchlorethylene, a dense dry cleaning fluid made by Diamond Alkali, Cleveland, Ohio, in its Texas processing plant.

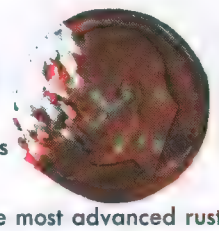
Developed by the Reynolds product development division and designed by H. M. Tiedemann and Company, Inc., the barge has a capacity of 5,200 barrels. It will be 97 feet six inches long by 35 feet wide. Its construction calls for a specially developed double-skin hull employing a durable non-corrosive alloy. More than 146,000 pounds of aluminum will be used.

The barge will carry from 10 to 20 per cent more payload than was possible with a similar-sized steel barge at the same draft, according to **Fred Graham,** President of Industrial Marine Service.

Also under contract with Reynolds for aluminum barges is another of the nation's leading inland waterway carriers, National Marine Service, New York. This company will use two aluminum barges for carrying similar cargoes on the Mississippi-Ohio river system. Its barges will be the largest ever made of aluminum and also are scheduled for service this fall.

"Aluminum's use in large hull construction opens a new market for the metal. We expect aluminum to become widely accepted for this use in the shipbuilding industry," Mr. **Zundel** said.

RUST destroys dollars



. . . indirectly it does! Ships cost dollars . . . lots of dollars . . . *AND RUST DOES DESTROY SHIPS.*

Remove rust quickly, thoroughly and economically, with the most advanced rust-removal equipment known today . . . the "HUSKY" ELECTRIC CHIPPING HAMMER. This compact, portable, 'one-man' operated unit, with its new "ALL-PURPOSE" Head removes rust and old paint from every part of your ship, both inside and outside. Its exclusive "CLUTCH HANDLE" feature gives operator instant stop and start control of rotating Heads with a mere 'flick' of the wrist, and assures smooth, effortless performance. Motor is equipped with aircraft-type Runners for easy maneuverability, allowing Motor unit to glide over and around obstacles.

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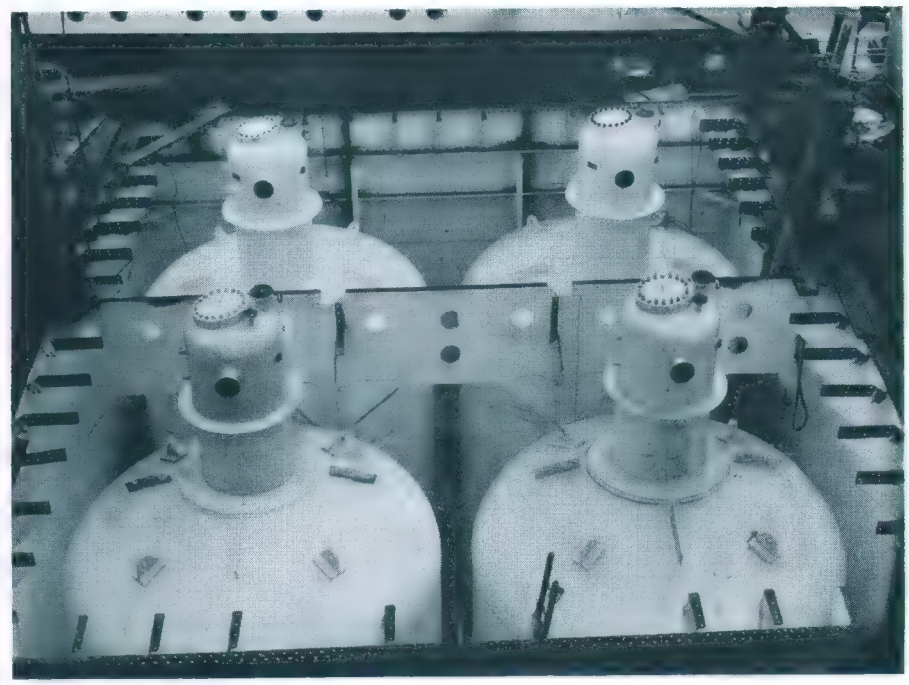

Gas bottles in position in the ship before closing up the deck.

A 10-year-old Shell tanker, the Gyrotoma, recently was converted for the unique carriage of propane and oil simultaneously. The vessel underwent extensive conversion work at the North Shields shipyard of Smith's Dock Company, Ltd. There are now 22 high-pressure steel containers installed in the main cargo tanks. White oil cargoes will be carried in the original wing tanks and in the remaining main tank space around the propane bottles.

Ten 37-ton containers having a diameter of 14 feet and twelve 25½-ton containers having a diameter of 12 feet have been installed. This necessitated the cutting away of large areas of the deck and replacing it when the bottles were in position. Openings were cut for the necks of the bottles, which now rise up through the deck. Extra seating for the bottles was constructed in the tank bottom.

The Gyrotoma, as originally built, had eight center tanks and five wing tanks port and starboard. The two longitudinal bulkheads extended above the main deck to form a trunk in way of the center tanks. Almost all of this trunk deck plating had to be removed. In order to maintain structural strength during conversion, the delivery of the propane containers was so arranged that the deck over each particular center tank could be released in turn. As the bottles have a neck of three and a half feet in diameter protruding through the trunk deck plating, the deck had to be cut away to the extent of 22 holes of this diameter. A riveted compensating doubler plate was fitted on the trunk deck stringers. The center tanks were shotblasted and "Epikote" painted before the propane bottles were installed.

The existing main cargo suction and discharge lines in the tanks and on deck had to be completely dismantled and re-installed to suit the bottle locations. The propane loading and discharging lines comprise four separate four-inch-diameter steel lines running the full length of the ship and branching into each bottle.

Special machinery has been installed for the discharging of cargo. Two six-cylinder Diesel engines have been fitted into a new deckhouse. Each of these engines drives hydraulic pumps—two of 60-hp and one of 10-hp—generating a pressure of 1500 psi through special spiral gearing. Four hydraulic motors provide the power to drive, through gear boxes, the two gas-compressing units and the two centrifugal propane liquid discharging pumps required for cargo discharge.

The total cargo capacity of the Gyrotoma before conversion was 7,763 tons. The present capacity, excluding propane cargo, is 5,671 tons. The propane capacity is 747 tons. The original light weight of the vessel was 3,200 tons. This has been increased by 1,210 tons due to the conversion and the deadweight reduced accordingly.

Senate Bill Permits Trade-In To Govt. Of World War II Ships

A bill permitting non-subsidized ship operators to trade-in to the Government World War II-built ships for more modern vessels in the U.S. Reserve Fleet was passed by the Senate and sent to the White House. The bill covers vessels built in American yards during the September 1939 - September 1945 period.

The owners must pay the difference in value in cash and assume other repairing and reactivating costs.

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In the 75 years since its founding, T. Smith & Son, Inc., has pioneered every phase of marine cargo handling in New Orleans, the nation's second port. In fact, since 1885, the company's contributions to American and world trade can be measured only in billions of man hours and cargo tons. Today, as in 1885, the management and staff of T. Smith & Son are dedicated to providing the best cargo handling facilities for every shipping need — General and Bulk Cargoes, Heavy Lift, Terminal Operations, Grain and Cattle Fittings, Sacking Facilities, Towing and Salvage.

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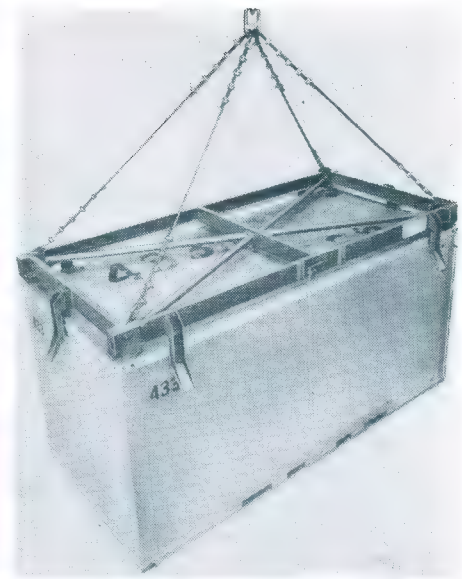
THE BETTER PART OF A CENTURY OF STEVEDORING LEADERSHIP

New Spreader For Lifting Containers By National Malleable

A new lifting spreader for semi-automatic-manual operation with the company's Speedloader System of containerized cargo handling is announced by National Malleable and Steel Castings Company.

The manufacturer emphasizes that the new semi-automatic spreader adds greatly to the overall flexibility of the Speedloader System. This is especially true in smaller plants, in truck terminals, or in other installations where relatively small freight volume may not warrant a fully automatic cargo container handling system. Other important uses for the new lower cost semi-automatic spreader occur in the marine field where a limited number of containers can be handled with the ship's gear for deck loading, in smaller military installations, and in warehouses.

The semi-automatic lifting spreader is fully compatible for use with all containers handled by completely automatic Speedloader Systems. While handling speeds are, of necessity, not as great as with the latter systems, many of the inherent advantages of the National Speedloader System are retained. Among these are quicker easier handling than by conventional methods.



New semiautomatic-manual spreader for use with cargo containers employing the National Speedloader System of containerized cargo handling. Speed of handling over conventional methods is claimed, yet keeps capital investment low. Equalizer sling can be provided for picking up unbalanced loads.

The new spreader incorporates the same automatic coupler latches that engage pockets in the container corner castings as in the fully automatic Speedloader installations. In the case of the semi-automatic spreader, all four latches are released manually by means of one lanyard. An anti-creep safety feature is also incorporated, as are aligning wings to automatically position the spreader over the container. The spreader and container are lifted by crane, cable hoist, block and tackle or other device.

Germanischer Lloyd Names Paul H. Blair Chicago Surveyor

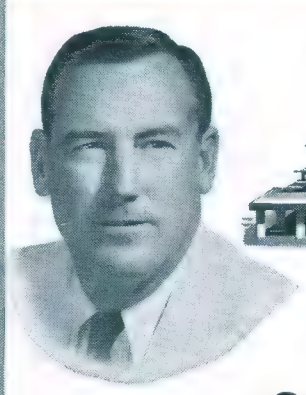
Ernst Glaessel, Inc., 44 Whitehall Street, New York 4, N.Y., has announced the appointment of **Paul H. Blair,** Naval Architect, Marine Engineer and Ship Surveyor, 469 E. Ohio Street, Chicago 11, Ill., as Hull and Engine Surveyor for Germanischer Lloyd, German classification society, for the Chicago District.

Russell W. Bowes

Russell W. Bowes, sixty, Vice-President and Director of the Todd Shipyards Corporation, One Broadway, New York, died in Methodist Hospital, Houston, Tex., after a short illness.

Mr. **Bowes** was born in New York City and was a veteran of World War I. He began his business career in 1919 as a Secretary to the Vice-President of the White Fuel Oil Engineering Corporation, a subsidiary of Todd.

In 1932, he was elected Vice-President and Director of Todd Combustion Equipment, Inc., and in 1943 was named President. He became a director of Todd Shipyards Corporation in 1951 and in 1958 was elected a Vice-President with jurisdiction over its products and industrial divisions, with headquarters in Houston.



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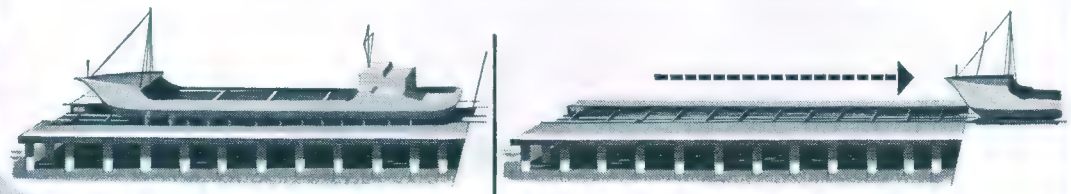

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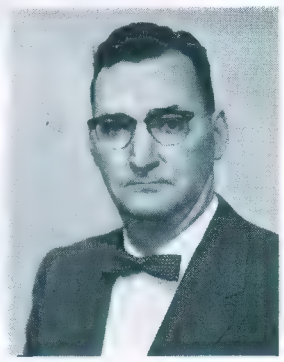
W. A. Kosicki And L. F. Bledsoe Appointed To Head Divisions At Newport News Shipbuilding

W. A. Kosicki



L. F. Bledsoe

The appointments of two new division heads were announced recently by the Newport News, Va., Shipbuilding and Dry Dock Company. **W. A. Kosicki** has been named Superintendent of the Machine Shops Division, and **L. F. Bledsoe** has been appointed Atomic Power Engineer.

Mr. **Kosicki** will succeed **J. C. Sterling,** who will serve in an advisory capacity in the Machine Shops Division until his retirement. A veteran of 25 years with the company, Mr. **Kosicki** was first employed in the present Machinery Installation Department in June 1926. He left the company to join the Scott Paper Company in February 1950. With Scott he held the position of Chief Engineer at the firm's plants in Detroit, Mich., Chester, Pa., and Marinette, Wis. On December 1, 1958, Mr. **Kosicki** returned to the Newport News shipyard to accept an appointment as an Assistant Engineer, Machinery Design Division. Since April 1960, he has served as an Assistant Superintendent in the Machine Shops Division.

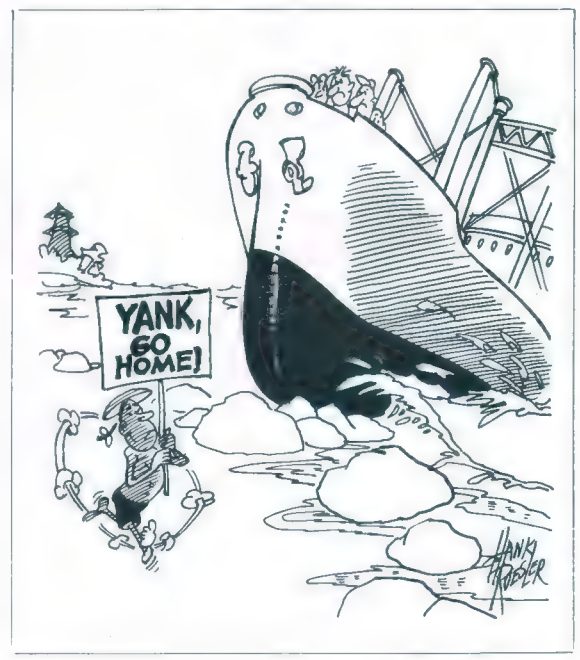
Mr. **Bledsoe** succeeds **M. L. Ireland, Jr.,** who was elected Vice-President, Nuclear Power Activities. Mr. **Bledsoe** has a continuous service record with the Newport News Shipyard and its subsidiary, The Eastern Idaho Construction Company, since his first employment in 1940. He joined the firm shortly after his graduation from the Alabama Polytechnic Institute with a B.S. degree in Mechanical Engineering. Assigned to atomic studies in the Machinery Design Division in 1954, Mr. **Bledsoe** was transferred to the Atomic Power Division when it was created as a separate department later that year. He has been Chief Test Engineer for the propulsion plant on the nuclear aircraft carrier Enterprise, which the Newport News firm is building for the Navy, since January 1, 1959, after his return from Idaho. He had served as Chief Engineer for the company's subsidiary, The Eastern Idaho Construction Company, at the site of the Large Ship Reactor Project from June 1956 until his return to the Peninsula and his new appointment in 1959.

Prudential Steamship Elects Skouras President

Prudential Steamship Corporation, New York, has announced that **E. T. Hardaloupas,** its President, has tendered his resignation which has been accepted at a meeting of the Board of Directors with great regret. Mr. **Hardaloupas** for the last six years has been responsible for reorganizing the company and arranging its finances on a sound basis, making it possible to qualify for a subsidy agreement, which the U.S. Government granted Prudential Steamship Corporation as of last April 1. Mr. **Hardaloupas** will continue as a Director of the company and he will serve as Special Adviser to the new President.

At the same meeting, the Board of Directors elected **Spyros S. Skouras** as President. Mr. **Skouras,** who is a graduate of Yale University, class of 1945, served during World War II in the Signal Corps Service of the United States Army. He has been identified with the film and theatre business and he was President of Skouras Theatres Corporation until recently.

Mr. **Skouras'** interests in the shipping business started with the building of two American supertankers since 1958 and he is the President of the two Corporations owning the tankers—The Skouras Lines, Inc., and World Wide Tankers, Inc., He is now to devote all of his time to the shipping business.



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Whitlock DURAFLEX yarns are all of approximately equal length—there are no short center yarns. Inner yarns are in pre-formed units twisted in opposite direction to outer yarns. Patented Whitlock process gives you a rope of long-lasting, *coordinated* strength with all yarns bearing a uniform strain.

Result: DURAFLEX rope construction distributes the stress and strain evenly—resists kinking and back turning. Distortion and knuckles are prevented. Benefits: you get better handling, stronger lines with more useful life. Why not talk it over with Whitlock. Call or write.

WHITLOCK

WHITLOCK DIVISION

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- General engine repairs, steam – diesel – turbine
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- Refrigeration and electric repairs
- Centrifugal babbitting
- Metal spraying

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MArket 7-0390

Cable Address A-PEE-CEE

DRYGALV permanently preserves the "Polaris" against salt-water corrosion

Photo courtesy of Equitable Equipment Company, New Orleans

The crew boat Polaris, a 42 passenger, 54' craft with a speed of 30 mph and V-12 diesels of plus 900 hp, is one of over 500 similar vessels built by the Equitable Equipment Company, New Orleans. Equitable extensively uses DRYGALV on all its boats to protect metal surfaces against rust and corrosion. DRYGALV is a flat gray film coating of 95% metallic zinc, whose cathodic action provides a permanent protection on all treated metal surfaces. It is non-toxic and requires no heat; can be brushed or sprayed over traces of rust, partially painted surfaces and clean metal. Dries in 15-30 minutes. One gallon protects 400 square feet of metal surfaces.

Send for Additional Information

AMERICAN SOLDER & FLUX CO.
Established 1910
3222 North 19th Street, Philadelphia 40, Pa.

Edo Awarded Navy Contract For Geo-Magnetic Speedometer

The U.S. Navy has awarded to Edo Corporation, College Point, Long Island, N.Y., manufacturer of electronic equipment, a contract for the design and development of a True Ground Speed Meter which will record the speed of vehicles over the ground or, in the case of ships, over the bottom. This is one of a series of contracts, with a total value of $1,000,000, awarded to Edo during the first half of June, it is announced by **A. M. Brown,** Vice-President-Sales.

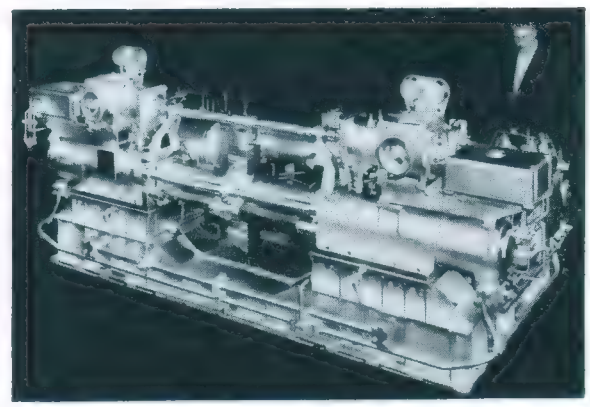
The True Ground Speed Meter, described as a geo-magnetic log, is a device which will electronically determine true velocity in relation to the earth's surface. Edo's geo-magnetic log will, for the first time, provide the ship or aircraft navigator with instantaneous and continuous indication of actual true speed, unaffected by currents, in the case of ships, or by wind, in the case of aircraft.

George Kent Ltd. Appoints Continental Engineering

George Kent (Canada) Ltd., of Toronto, Canadian subsidiary of George Kent, Ltd., of Luton, England, announced the appointment of Continental Engineering Corporation of New York City as their exclusive representative in the United States, its territories and possessions, for the sale of the Kent Clear View Screen.

This clear vision device, which has been standard equipment for years on the finest passenger vessels afloat, is in increasing demand by owners of cargo vessels, tankers, dredges, etc., and is now entering the field of yachts, cruisers and small craft with considerable success.

Western Gear Ships Unitized Steering Gear To Sun And Todd



Lykes Brothers steering gear under construction at Western Gears' big Seattle plant. Shown is aluminum paint undercoat called for by specification. On right: **Frank Carey,** Chief of Field Service for Western Gear.

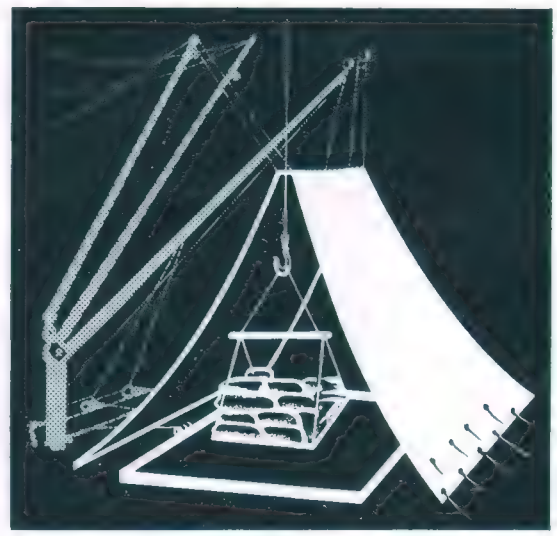
Western Gear Corporation, Seattle, Wash., has announced completion of production work, and shipment of seven unitized steering gears for Moore-McCormack cargo vessels under construction at Sun Shipbuilding, Chester, Pa., and Todd, San Pedro, Calif. Production emphasis has now shifted to a lot of four steerers on order with the company's Seattle plant for the Lykes Steamship vessels to be built at Bethlehem Sparrows Point shipyard. These will make a total of nine Lykes ships to be equipped with the advanced-design steerers developed by Western Gear.

Including units on order for Navy construction, and the American Mail Line ships at Todd, San Pedro, the total number of steering gears of the unitized design is believed to be nearing the thirty mark.

BRAND NEW SEATTLE HATCH TENTS

SAVE OVER **35%**

Manufactured to the rigid standards and specifications of the United States Government by the Seattle Tent and Awning Company (the world's foremost tent manufacturer).



immediate delivery! unconditionally guaranteed!

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SPECIFICATIONS

Width:	30 ft.	*Material:*	#6 duck.
Length:	40 ft.	*Construction:*	Fully roped, eyeleted, reinforced. Complete with hoist shoe and sheave.
Ridge:	30 ft.	*Pack:*	1 per envelope in export case.
Hoist:	25 ft.	*Shipping wt.:*	1000 lbs.
		Net wt.:	850 lbs.

IN ORIGINAL MANUFACTURER'S PACK...IN FACTORY FRESH CONDITION!

A fortunate purchase from the U.S. Government permits us to offer these Brand New Seattle Hatch Tents (West Coast Standard) at a savings of over 35%.

Shipped F.O.B. Los Angeles, California *write . . . wire . . . phone today*

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Division of Green Truck Sales, Inc.
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The S.S. President Harding of the American President Lines

B&W Juniors give extraordinary service in S.S. President Harding

Here's another unusual record of refractories service that saved operating and replacement costs for the American President Lines in the S.S. President Harding.

This ship was built in 1945 with B&W Junior Firebrick in the linings of both boilers. The rear wall of the starboard boiler, shown above, withstood 14 years of continuous maritime service. The cap was renewed in 1954. The rear wall of the port boiler was renewed 11 years after installation.

This exceptional service is an excellent example of the durability of B&W Juniors. They stand up under the punishment of high temperature firing, showing little shrinkage and negligible spalling.

The volume stability, spall and shock resistance of B&W Junior Firebrick result from B&W's exacting control of manufacturing methods and the unusual purity of the raw materials used.

Consult your B&W representative or write for complete information on durable B&W refractories for marine service to The Babcock & Wilcox Company, Refractories Division, 161 East 42nd Street, New York 17, N. Y.

R-622

B&W

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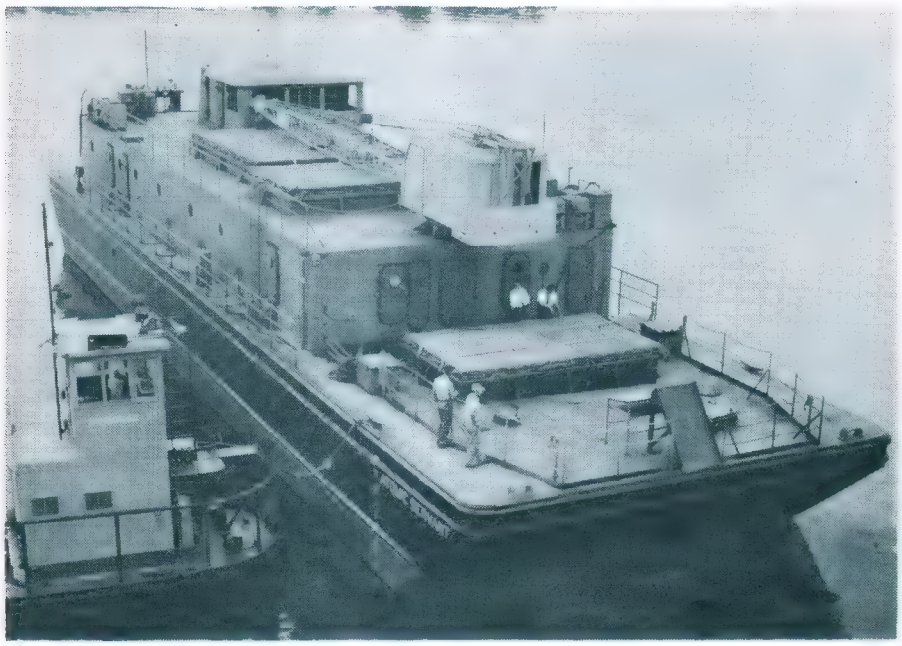
REFRACTORIES DIVISION

B&W Firebrick, Insulating Firebrick, and Refractory Castables, Plastics, Ramming Mixes, Mortars, and Ceramic Fiber.

NSV Atomic Servant Launched By Todd-Houston



The Atomic Servant will be manned by 10 to 15 highly trained technicians.

On June 8, 1960, the Products Division of Todd Shipyards Corporation, Houston, Tex., launched the Nuclear Servicing Vessel Atomic Servant under construction for the U.S. Maritime Administration.

The Atomic Servant is a 129-foot by 36-foot by 14-foot non-self-propelled vessel designed to maintain and service the nuclear reactor of the N.S. Savannah, the world's first atomic-powered merchant ship. She will receive, process, package and dispose of spent fuel and other radioactive wastes produced by the Savannah. Materials handled will include nuclear fuel elements, control rods, contaminated tools and reactor components, and contaminated liquid waste products.

Todd was awarded the contract for the construction of the Atomic Servant on July 9, 1959. The keel was laid January 25, 1960. Delivery will be made later in the summer at Camden, N.J., where the vessel will participate in an intensive series of tests and joint operations with the Savannah. At the time of launching, the Atomic Servant weighed approximately 370 tons. Her delivered weight upon completion will be approximately 760 tons. About 250 tons of her final weight will consist of lead shielding installed for the protection of personnel. In addition to the lead, the vessel incorporates numerous monitoring systems and decontamination devices and measures.

When servicing the Savannah, the Atomic Servant will be manned by 10 to 15 highly trained technicians. Temporary quarters and a pantry are provided for their convenience. Principal compartments in the vessel are a fuel pit for handling fuel elements and control rods; a waste processing compartment for handling liquid waste products; a component decontamination and work shop area; a personnel decontamination room; a laboratory, and an operations room with controls and alarms.

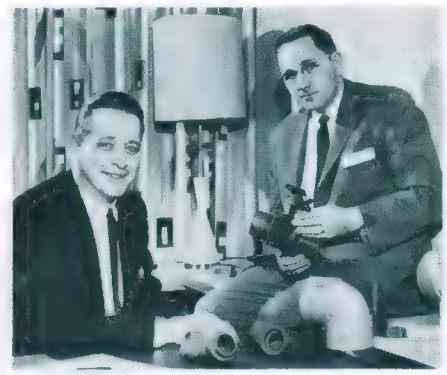
Todd expects to play an increasingly important role in maritime nuclear power developments. The company was recently awarded a five-year Maritime Administration contract for the maintenance and repair of the N.S. Savannah and in the near future will also receive a contract to operate and maintain the Atomic Servant for the same period. A Nuclear Division was recently formed to coordinate these nuclear activities at Todd's eight shipyards on the Atlantic, Gulf and Pacific Coasts.

Thompsen Heads Marine Industry Sales For TTP

Formal entry in the marine piping field was announced by Tube Turns Plastics, Inc., Louisville, with the appointment of **James A. Thompsen,** New York, as Marine Sales Engineer.

Tube Turns Plastics is the pioneer U.S. manufacturer of injection-molded fittings of unplasticized polyvinyl chloride and other thermoplastics for industrial piping.

Carl B. McLaughlin, President, said Mr. **Thompsen,** who had been Manager of Marine Sales for American Hard Rubber Company, division of Amerace Corporation, New York, since 1951, will supervise national sales of TTP's fittings in both commercial marine and pleasure boat fields. Mr. **Thompsen,** a specialist on plastics for shipboard use, is a partner in Coast Marine Associates, Inc., 550 Fifth Avenue, New York, an experienced sales organization serving ship building engineers.



Earl A. Erich, Vice-President, (left) and **James A. Thompsen,** New York specialist on plastics for shipboard use, discussed UPVC and other thermoplastic fittings produced by Tube Turns Plastics, Inc., Louisville, following Mr. **Thompsen's** appointment as TTP Marine Sales Engineer to mark the company's formal entry into the marine piping field.

He was a Lieutenant in the U.S. Maritime Service during World War II, and is a member of the Society of Naval Architects and Marine Engineers and the U.S. Naval Institute and Chairman of the Plastic Pipe and Tube Committee of the American Boat and Yacht Council. Mr. **Thompsen** is the author of numerous papers in marine technical publications.

Maracaibo Firm Orders LeTourneau Barge

R. G. LeTourneau, Inc., Vicksburg, Miss., will build a crane barge for Consorcio Puente Maracaibo. The vessel will measure 160 feet by 85 feet by 13 feet.

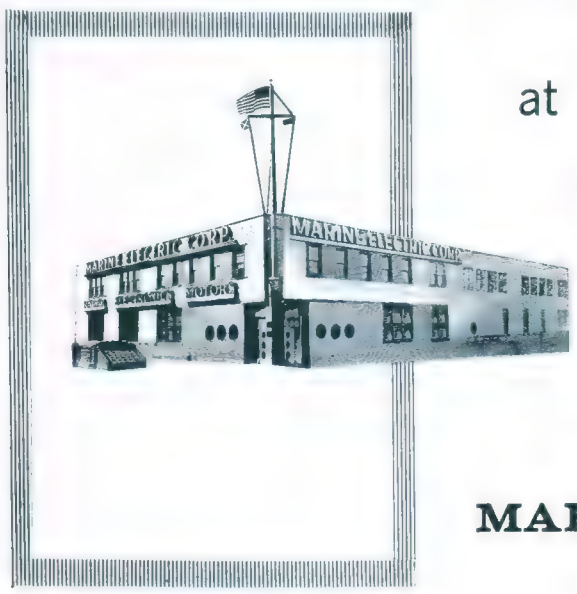
Four Scholarships Awarded By SNAME

The Society of Naval Architects and Marine Engineers has announced the award of four graduate scholarships—two in naval architecture and two in marine engineering—for the 1960-1961 academic year. Recipients of the scholarships were chosen by the Society's Scholarships Committee, headed by **H. G. Bauer,** Executive Vice-President, DeLaval Steam Turbine Company, from a large number of applicants on the basis of scholastic ability, character, leadership and general promise for a future in the marine industry.

Marine engineering awards were granted to **George Webb,** now doing graduate work at the Virginia Polytechnic Institute, and **Roy L. Harrington,** now employed by the Newport News Shipbuilding & Dry Dock Company. Mr. **Webb** will continue his studies at Virginia Polytechnic Institute and Mr. **Harrington** will study at the University of Michigan, Ann Arbor, Mich.

Grants for advanced studies in naval architecture were awarded to **William C. Webster,** at present engaged in graduate work at the University of California, Berkeley, Calif., and **Robert J. Scott,** who is on the staff of Gibbs and Cox, Inc., naval architects and marine engineers of New York. Mr. **Webster** will continue his studies in Berkeley and Mr. **Scott** will study at the University of Michigan.

The competition, held on a nationwide basis, was open to all who could qualify. Tuition fees for two semesters and living expenses are included in each award, which this year will total nearly $9,000 for the four awards.



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In all, Hitachi Zosen has five yards including Innoshima which houses its major facilities, and 14,000 skilled employees. 11 building berths have capacities up to 65,000 dwt for building any ships and 13 privately owned dry docks are equipped with all latest facilities to provide greatest economy in time and labour.

Hitachi Zosen also has the capacity to manufacture efficient Hitachi B&W Diesel Engines up to full output of over 25,000 bhp. It is these, together with other modern building and repairing facilities, that have enabled the name of Hitachi to stand proudly among those of the world's leading shipbuilders.

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"Hitachi Zosen News"
Published bi-monthly

SPECIAL CITATION: Esso Standard receives special citation in recognition of all the company's vessels having achieved a rating of 95 or higher on U.S. Public Health Service inspections during 1959. The citation was presented by **W. E. Gilbertsen** (center), Chief of the Division of Engineering Services, USPHS, to **J. D. Rogers** (left), General Manager of Esso Standard's marine department. Esso's Executive Vice-President, **R. H. Scholl** (right), speaking at the presentation luncheon at the New York Yacht Club, New York, emphasized that "good housekeeping is good business . . . afloat and ashore."

Dr. Walter H. Zinn Combustion Engineering VP Honored By Nuclear Society

Dr. Walter H. Zinn, Vice-President in charge of Nuclear Activities of Combustion Engineering, Inc., New York, N.Y., was named a "Fellow" of the American Nuclear Society at the Society's sixth annual meeting in Chicago.

Dr. **Zinn,** former Director of the Argonne National Laboratory and founder and President of the General Nuclear Engineering Corporation—acquired by Combustion Engineering in 1959—was also a recipient of the "Atoms for Peace Award" on May 18, 1960. This award, which carried an honorarium of $37,500, was established by the Ford Motor Company in 1955. Dr. **Zinn's** scientific achievements were further recognized by his recent appointment as a member of the President's Science Advisory Committee.

Lavan Introduces Fiberglass Ventilator

A new reinforced fiberglass ventilator of great strength, light weight and exceptional color appeal is being introduced by the Marine Division of Lavan Coating Products, Inc., of 67 Seabring Street, Brooklyn, N.Y.

Using 100 per cent solid epoxy throughout, the outside and inside may be different colors that present a neat attractive appearance at all times. Since color is molded in, no repainting is ever necessary. The surface, absolutely rust-proof and resistant to all weather conditions, reduces maintenance to a minimum. Solid covers to slip over lip and fiberglass screens are also available.

Dutch Firm Names Newest Tug "Mississippi"

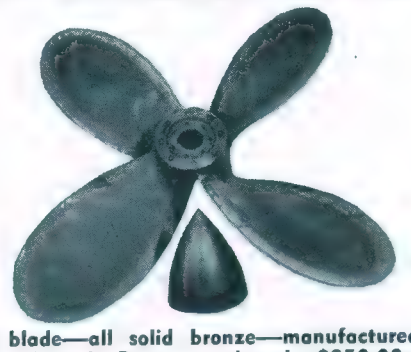
Mrs. Philip Young, wife of the United States Ambassador to The Netherlands, recently christened L. Smit & Company's newest tug, the Mississippi, near Rotterdam. The company's senior Managing Director **Murk Lels,** in thanking **Mrs. Young** for her participation in the launching ceremonies, pointed out: "We have named this latest major addition to our ocean towing fleet after America's largest river, in special tribute to the long-standing maritime importance of the Gulf Coast, and in appreciation of the ever-growing request for L. Smit & Company's ocean towing services in the Gulf area as well as along the Eastern seaboard of the United States."

The company's fleet now consists of 80 towage and salvage vessels. One of these is named the Hudson, harking back to the early Dutch founding of New York or New Amsterdam.

According to Phs. van Ommeren Shipping (U.S.A.), Inc., and Biehl & Company, L. Smit & Company's general agents in the United States and representative on the Gulf Coast respectively, the Mississippi has been designed especially to tow heavy objects over long distances. She is powered by twin Diesels, delivering 3,250-hp.

Her main dimensions are: length o.a. 175 feet two inches; length b.p. 155 feet 10 inches; breadth, molded 32 feet 10 inches; depth, molded to main deck 16 feet nine inches, and draught, mean 14 feet nine inches.

NEW - UNUSED LST PROPELLERS



Four blade—all solid bronze—manufactured by Federal Mogul. Port or starboard—$850.00 each FOB Baltimore. Also suitable for many towboat operators using 12-567A engines. Write—wire—phone NOW!

THE BOSTON METALS COMPANY
313 E. Baltimore St., Baltimore 2, Md.
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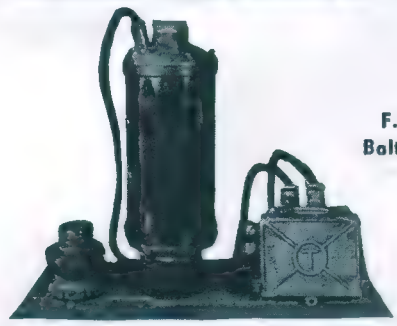
PEERLESS SUBMERSIBLE PUMPS



F.O.B. Baltimore

Unused bronze pumps—4 HP 230 volts DC—3200 RPM—17.4 amps. 120 GPM @ 63' total head; 200 GPM @ 47' total head. Shut-off pressure 87'. Motor mfg. by Ohio Electric Co.—totally enclosed—water cooled—compound wound—continuous duty—class A insulation—equipped with waterproof starter and 50' of 4-conductor waterproof cable. Complete with foot valve—strainer—control. For standard 2½" hose. Pump can be lowered into water in any position and will pump continuously.

ALSO AVAILABLE: Sawyer pumps, as above, but in 115 volt DC models.

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WATERTIGHT DOORS

With frames—new stock from Liberty ships now dismantling. Immediate delivery.

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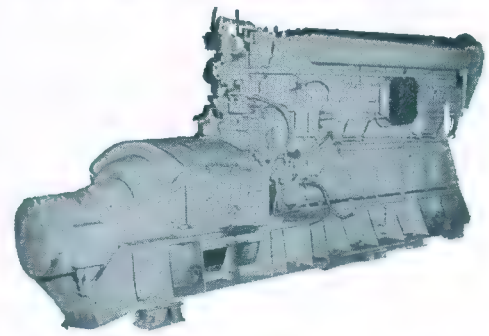
FOR SALE: DERRICK BARGE—Welded Steel Hull, 131' x 36' x 8' with Deck House, Quarters for 16 men, Galley, Electric Plant and 25-Ton "Osgood" 360 Degree Revolving Crane. Crane powered by Caterpillar Diesel D-1300. Built 1953 by Equitable Equipment Company, New Orleans. This barge in good operating condition. Available FOB Puerto Ordaz, Venezuela.

FOR SALE: TUG "Dauntless"—Welded Steel Hull. Built 1946 by Parker Brothers, Houston, Texas. Quarters for 12 men. Powered by Superior Diesel 1325 HP. Beam 22' 3", Length 100' 7", Draft 9' 9". Speed 11 knots, fuel capacity 19,448 gallons. Craft is fully equipped and in good operating condition. Available FOB Puerto Ordaz, Venezuela.

Box 502 **MARITIME REPORTER**
107 E. 31st St. **New York 16, N. Y.**

DIESEL GENERATORS



4—Cooper - Bessemer Diesel Engines, Model FS-6, 375 HP, 6 cylinders, 8¾" core, 11" stroke, with General Electric generators, 312 KVA, 250 KW, 450 volts A.C., 3-phase, 60 cycles, and with General Electric exciter, 4.5 KW, complete with switchboards.

Contact: Ralph E. Ingram

ZIDELL EXPLORATIONS, INC.
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45' 6" Heavy Duty Stock Tug

Gladding - Hearn SHIPBUILDING CORPORATION
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8—General Electric Turbines, type FN3-FN20, 6-stage, steam pressure 525/565# g, superheat 365°F/375°F, with General Electric Generators, 750 KVA, 600 KW, 450 volts A.C., 3-phase, 60 cycles, 1200 RPM. Exciters: General Electric, 7½ KW, 120 volts D.C.

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(A) **DPC TYPE DIESEL TUG** — 82′ x 24′ x 9′. 720 HP. Built 1943. Price: $85,000

(B) **STEEL DIESEL TUG** — under conversion to 1600 HP. 105′ x 24′ x 11′. Priced to sell

(C) **STEEL DECK SCOW**—175′ x 40′ x 12′. Built 1933. Price: $24,000

(D) **2 WOOD PILE DRIVERS** — 48′ x 24′ x 5.8′ with 58-foot leads. Priced to sell

STEEL & WOOD DECK BARGES FOR SALE OR CHARTER

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11 Broadway, New York 4, N. Y.
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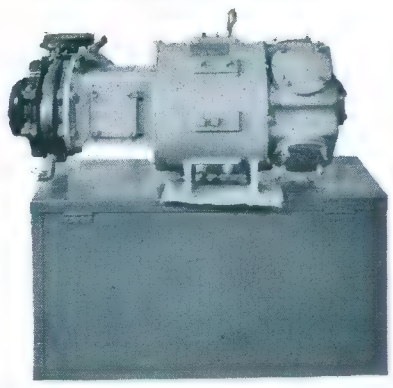

ALL BRONZE CENTRIFUGAL PUMPS

Mfg by Lombard Pump Co.—85 GPM/22.3 lbs. head. Size 2 x 2—Star motor C-284 — 3 HP — 115 volts DC—23.5 amps—1750 RPM —stab. With full set of spares—excellent for cooling service in diesel installations or other circulating service.

$188.50 EACH F.O.B.

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Produced by The New Jersey Zinc Co.
Meets Military Spec. Mil-A-18001 (ships)
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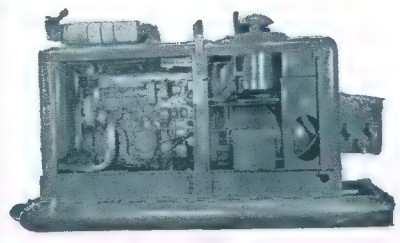
Steam Engineers for 15 cubic yard Dipper Dredge. Starting salary—$4.30 per hour; 2nd step—$4.53 per hour; 3rd step—$4.76 per hour.

Steam Engineers for Floating Crane, 250-ton lift. Starting salary—$3.77 per hour; 2nd step—$3.97 per hour; 3rd step—$4.17 per hour.

Interested applicants may receive detailed information by writing to the Personnel Director, Panama Canal Company, Balboa Heights, C. Z. Applicants must have a minimum 1st Assistant Steam License. Basic work week is 40 hours.

PANAMA CANAL COMPANY
Balboa Heights, Canal Zone



G.M. 150 KW A.C. DIESEL GEN. SETS

19 sets to choose from. Thoroughly tested & guaranteed. Will ship same day order is received. Completely portable, mounted on oil field skids. Self-contained package units with built-in switch gear & radiator. ENGINE: GM 110—6 cyl. GENERATOR: Delco 150 KW 187.5 KVA—208/240/416/480 volts 3-phase 60-cycle. 125 VDC excitation. Units completely hooded, with tanks in base. With panel board. Just plug in for any of the above voltages. No piping or heat exchangers to hook up. Ideal for oil field use, marine construction, offshore drilling rigs, dredges, standby generators, etc.

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NEW FLOATING CRANE FOR SALE

50 Tons Cap. @ 40′ Radius
100′ Boom 4 Drum Hoist
Oil Fired Boiler

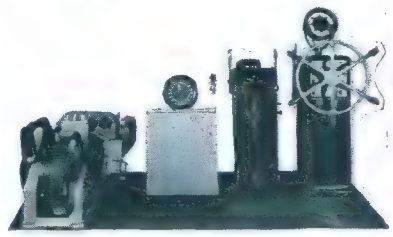
HAVRE DE GRACE SHIPYARD, INC.
Havre de Grace, Md.

FOR LEASE or SALE

OCEAN GOING REPAIR AND CARGO BARGE WITH QUARTERS AS IS, OR WILL MODIFY TO YOUR SPECIFICATIONS

Bludworth Construction Co., Inc. P.O. Box 12424 Houston 17, Texas Phone Walnut 1-7124

SPERRY No.1 STEERING GEAR



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4—75 HP, CROCKER-WHEELER MOTORS, 230 volts DC., 860 RPM, 261 amperes, stab. shunt wound, 2-Ball Brng.
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1—125 HP, ALLIS-CHALMERS MOTORS, 230 volts DC, 600 RPM, shunt wound, 2-ball brng.
5—250 KW WESTINGHOUSE GENERATORS, 120/240 volts DC, 1200 RPM, 1040 amperes, Single sleeve brng.
—RELIANCE M.G. SETS. Motor: 150 HP, 230 volts DC, 1080/1260 RPM, stab. shunt wound. Generator: 100 KW, 450 volts AC, 3-phase, 60 cycles, 1200 RPM, with DC exciter and speed regulator.
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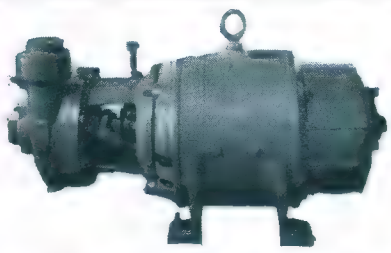

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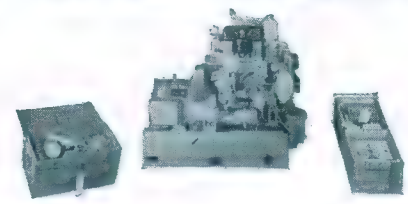

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Foster Wheeler Corp., 666 Fifth Ave., New York 19, N. Y.

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Radiator Specialty Co., 1400 Independence Blvd., Charlotte, N. C.

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Maritime Power Corp., 39 Broadway, New York 6, N. Y.
Northern Metal Co., Milnor & Bleigh Streets, Philadelphia 35, Pa.
Walsh Const. Co., Ship Salvage Div., P.O. Box 1536, Portland, Maine

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Mowbray's Tug and Barge Sales Corp., 11 Broadway, New York 4, N. Y.

SHIPBUILDING—Repairs, Maintenance, Drydocking
American Bridge Div. of U.S. Steel Corp., 525 William Penn Place, Pittsburgh, Pa.
American Marine Corp., P.O. Box 26035 New Orleans, La.
Atlantic Port Contractors, 107 Cuthbert St., Philadelphia 6, Pa.
Avondale Marine Ways, Inc., P.O. Box 1030, New Orleans 8, La.
Bath Iron Works Corp., Bath, Me.
Bethlehem Steel Co., Shipbuilding Div., 25 Broadway, New York 4, N. Y.
Blount Marine Corp., Warren, Rhode Island
Brewer Dry Dock Co., Mariners Harbor, Staten Island, N. Y.
Ira S. Bushey & Sons, Inc., 764 Court St., Brooklyn, N. Y.
Coastal Drydock & Repair Corp., 1435 Richmond Ter., Staten Island 10, N. Y.
Diesel Shipbuilding Co., Atlantic Blvd. at Intra-coastal Canal, Jacksonville, Fla.
Dravo Corp., Neville Island, Pittsburgh 25, Pa.
Gulfport Shipbuilding Corp., P.O. Box 1179, Port Arthur, Texas
Halifax Shipyards, Ltd., Halifax & Dartmouth, Nova Scotia, Canada
Harima Shipbuilding & Engineering Co., Ltd., Tokyo Boekikaikan Bldg., Otemachi, Chiyoda-Ku, Tokyo, Japan
Hitachi Shipbuilding Co., 25 Nakanoshima 2-chome Kitaku, Osaka—Japan
Ingalls Shipbuilding Corp., Birmingham, Ala.
Maryland Shipbuilding & Dry Dock Co., Baltimore 1, Md.
Merrill-Stevens, P.O. Box 1049, Jacksonville 1, Florida
Mobile Ship Repair, Inc., Ala. State Docks, P.O. Box 1591, Mobile, Ala.
National Steel & Shipbuilding Corp., San Diego 12, Cal.
Newport News Shipbuilding and Dry Dock Co., Newport News, Va.
New York Shipbuilding Corporation, 2430 Broadway, Camden 1, N. J.
Perth Amboy Dry Dock Co., Perth Amboy, N. J.
Puerto Rico Drydock and Marine Terminals, Inc., P.O. Box 2209, San Juan 10, Puerto Rico.
Rodermond Industries, Foot of Henderson St., Jersey City 2, N. J.
St. Louis Shipbuilding & Steel Co., 611 East Marceau, St. Louis 11, Mo.
Firma Willy H. Schlieker K6, Hamburg, Germany
Sun Shipbuilding & Dry Dock Co., Chester, Pa.
Todd Shipyards Corp., 1 Broadway, New York City
Wiley Mfg. Co., Port Deposit, Md.

SHIP MODELS
Arthur G. Henning, Inc., 12-14 South Third Ave., Mount Vernon, N. Y.

SHIP OPERATORS
American Export Lines, Inc., 25 Broadway, New York 4, N. Y.
United Fruit Co., Pier 3, North River, New York 6, N. Y.

SPARK ARRESTORS and MUFFLERS
Marine Products & Engineering Co., 20 Vesey St., New York 7, N. Y.

STEAM GENERATING EQUIPMENT
Babcock & Wilcox Co., 161 East 42nd St., New York 17, N. Y.
Combustion Engineering, Inc., 200 Madison Ave., New York 16, N. Y.

STEERING SYSTEMS
American Engineering Co., Wheatsheaf Lane & Sepviva St., Philadelphia 37, Pa.
Controlex Corp. of America, White Plains, N. Y.
Sperry Piedmont Co., Div. of Sperry Rand Corp., Charlottesville, Va.

STEVEDORING
American Stevedores, Inc., 90 Broad St., New York, N. Y.
T. Smith & Son, Inc., 625 Hibernia Bldg., New Orleans 12, La.

TANK CLEANING
Magnus Chemical Co., 106 South Ave., Garwood, N. J.
Union Engineering Corp, First and Clinton Sts., Hoboken, N. J.

TELEGRAPH SYSTEMS
Controlex Corp. of America, White Plains, N. Y.
J. Harper & Son Co., P.O. Box 516, 244 Long Island Ave., Wyandanch, L. I., N. Y.
Engine Order, Docking Order, Rudder Angle: Henschel Corp., Amesbury, Mass.

TELEPHONES - Marine - Sound Powered - Radiotelephone
Henschel Corp., Amesbury, Mass.
Hose-McCann Telephone Co., 25th & 3rd Ave., Brooklyn, N. Y.
Marine Electric Corp., 600 Fourth Ave., Brooklyn 15, N. Y.

TOWING—Lighterage, Transportation, Barge Chartering
Bay Houston Towing Company, 811 Cotton Exchange Bldg., Houston, Tex.
Cornell Steamboat Co., 712 12th Ave., New York 19, N. Y.
Curtis Bay Towing Co., Mercantile Bldg., Baltimore 2, Md.
Dalzell Towing Co., Inc., 21 West St., New York 6, N. Y.
Foundation Co. of Canada, Ltd., Marine Div., 1220 Bay St., Toronto 5, Ont., Canada
Henry Gillen's Sons Lighterage, Inc., 15 Moore St., New York 4, N. Y.
Hughes Bros., Inc., 17 Battery Pl., New York, N. Y.
Island Tug & Barge, Ltd., 355 Burrard Street, Vancouver 1, B.C.
Mc Allister Bros., Inc., 19 Rector St., New York, N. Y.
P. F. Martin, Inc., Mail Bldg., 325 Chestnut St., Philadelphia, Pa.
Moran Towing & Transportation Co., Inc., 17 Battery Place, N. Y.
Porto Rico Lighterage Co., Pier 10. Box 2966, San Juan 13, Puerto Rico
Red Star Towing & Transportation Co., 19 Rector St., New York 6, N. Y.
Russell Bros., Towing Co., 122 East 42nd St., New York 16, N. Y.
L. Smit & Co., 11 Broadway, New York 4, N. Y.
M. & J. Tracy, Inc., 1 Broadway, New York, N Y.
Turecamo Coastal and Harbor Towing Corp., 1752 Shore Parkway, Brooklyn, N. Y.
Wright & Cobb Lighterage Co., 19 Rector St., New York, N. Y.

TUBING—Marine
American Brass Co., Waterbury 20, Conn.

TURBINING
Union Engineering Corp., First and Clinton Sts., Hoboken, N. J.

VALVES
Caldwell Machine Co., 34 Coffey St., Brooklyn 31, N. Y.
Crane Co., 4100 South Kedzie, Chicago 32, Illinois
Hooper Valve & Engineering Corp., 24th St. & Virginia Ave., Newport News, Va.
Hubeva Marine Plastics-Lining, 435 Hamilton Ave., Brooklyn 31, N. Y.
Mechanical Marine Company, 45-15 37th St., Long Island City, N. Y.
Valve Rebuilders, Inc., 129 31st St., Brooklyn 32, N.Y.

VALVE REPAIR
Valve Rebuilders, Inc., 129 31st St., Brooklyn 32, N.Y.

WEATHER ROUTING
Weather Corporation of America, 26 Broadway, New York 4, N. Y.

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BETHLEHEM STEEL
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GENERAL OFFICES: 25 BROADWAY, NEW YORK 4, N. Y.

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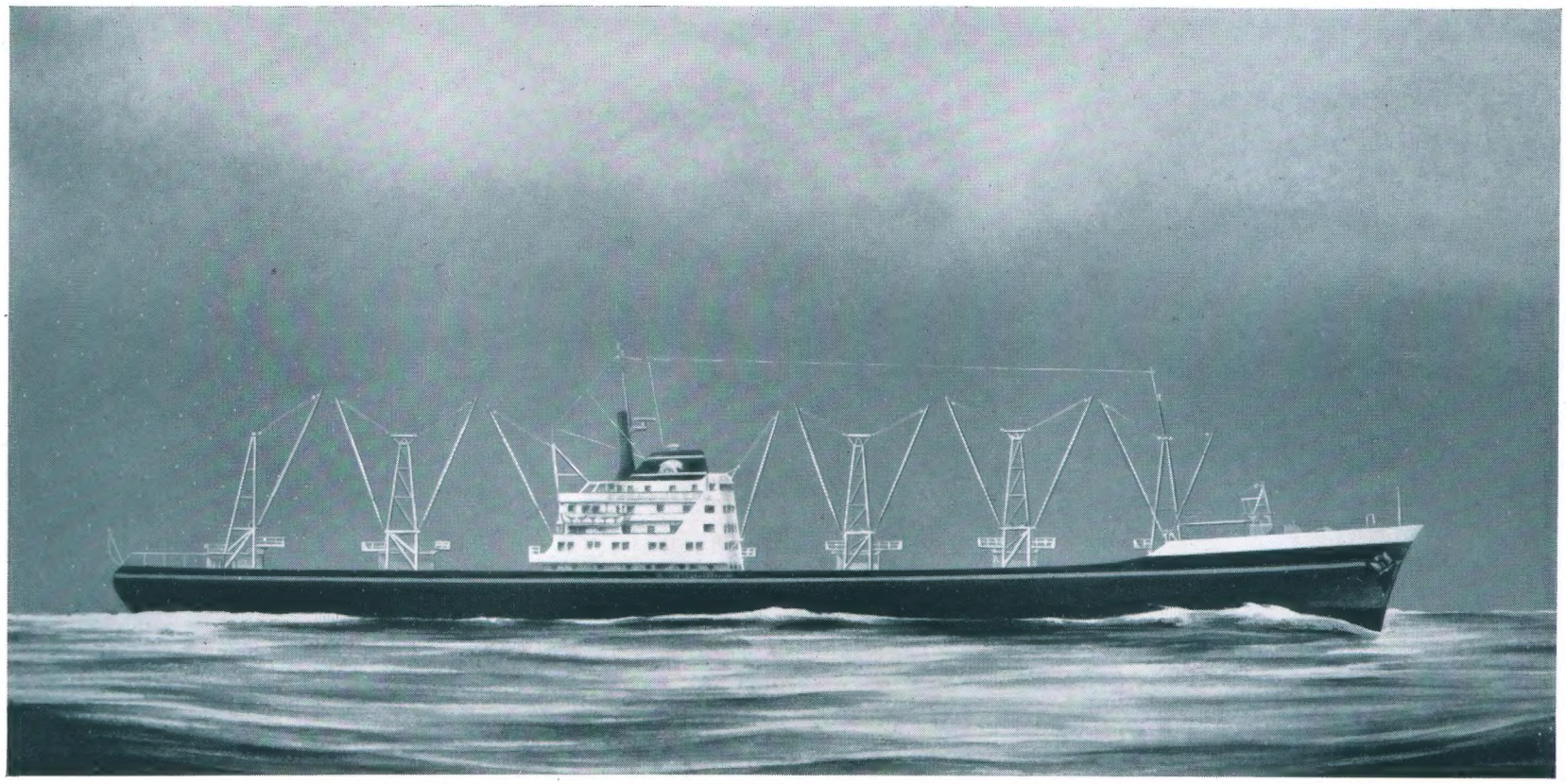


Pacific Far East Line's new cargoliners measure 565′ long, 76′ in the beam, displace 22,620 tons. Decks accommodate 59 standard and 71 refrigerated vans. Holds accommodate 240,000 cu ft dry cargo, 24,000 cu ft chill cargo, 38,000 cu ft freeze cargo, 104,000 cu ft liquid cargo.

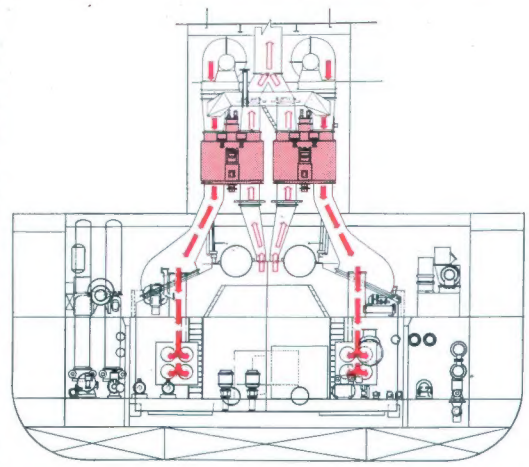
PACIFIC FAR EAST LINE'S NEW CARGOLINERS EQUIPPED WITH LJUNGSTROM® MARINE AIR PREHEATERS

From stem to stern, Pacific Far East Line's two new cargoliners are designed for top flexibility and efficiency. Both the S.S. Philippine Bear and the S.S. China Bear are equipped to handle dry, liquid, refrigerated and frozen cargo, as well as 130 "land-sea" vans on deck. Self-unloading grain spaces can discharge cargo at the rate of 200 tons per hour. Both ships are powered by 17,500 shp cross-compound geared turbines that can sustain a sea-speed of 20 knots. To develop this speed with optimum fuel economy, the boilers are equipped with Ljungstrom Marine Air Preheaters.

The Ljungstroms in these PFE cargoliners increase boiler capability and cut fuel consumption by reducing the exit gas temperature at normal design load by 302°F, thus increasing combustion air temperature by 364°F. Not only does this preheated air make fuel burn more completely, but the Ljungstrom's continuous regenerative process minimizes smoke and deposits.

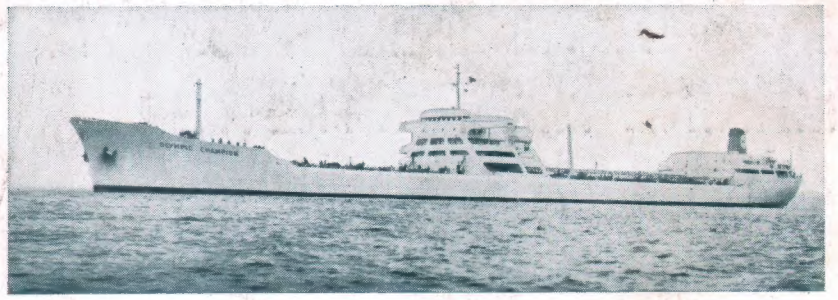
These compact Ljungstrom's occupy about 600 cu ft. And they're easy to maintain—observation ports permit in-service visual checks, and they can be cleaned, at sea or in port, with integral soot blowers.

For complete information on all these advantages, write for your free copy of "The Ljungstrom Marine Air Preheater," an informative 16-page booklet.



Above: Schematic arrangement of boilers and Ljungstrom Air Preheaters. The Ljungstrom has heat transfer surfaces which revolve continuously through counter-flow streams of exhaust gas and incoming air. These surfaces reduce the temperature of the ship's boiler exhaust by 302°F, bringing the stack temperature down to less than 300°F. Each 40°F thus recovered represents approximately 1% gain in boiler efficiency.

THE AIR PREHEATER CORPORATION *60 East 42nd Street, New York 17, N. Y.* MUrray Hill 2-8250



OLYMPIC CHAMPION, operated by Olympic Maritime S. A. New supertanker is 844.5 feet long, can generate 24,200 shp—and is Texaco-lubricated from stem to stern.

One of the largest tankers ever built in Europe is 100% Texaco-lubricated

The new 65,088-ton Olympic Champion marked another milestone in Europe's post-war boom when she was launched at Kiel last June. Built by the giant Kieler Howaldtswerke a.g., she is one of the largest tankers ever to slide down the ways of a European shipyard.

For long-term operating economy, the new supertanker relies exclusively on Texaco lubricants and Texaco marine service. Texaco Marine Engineers—all Licensed Chief Engineers—worked with the owners and the shipyard, specifying the lubricant that would do the best job for each of the various types of advanced machinery aboard the vessel.

Texaco can help you. Texaco Marine Engineering Service can do the same for your company when you plan to build your next ship—or make changes in your present fleet. Talk to a Texaco Engineer at the design stage, when his help can benefit you most. Texaco Inc., *Marine Sales and Bunkering Services Division,* 135 East 42nd Street, New York 17, N. Y.

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